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FOR

THE YEAR 1871.

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ILLUSTRATIONS.

ILLUSTRATIONS OF PATENTS

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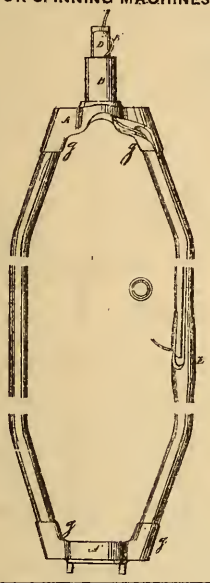
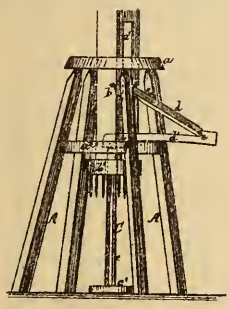
JAN. 3, 1871.

110,617. THEODORE T. ABBOT. JOHN A. V. SMITH.
FLIERS FOR SPINNING-MACHINES.



110,618. JOHN ADAMS. MOLE-TRAPS.



110,619. ELIJAH C. ALLEN.
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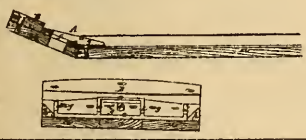

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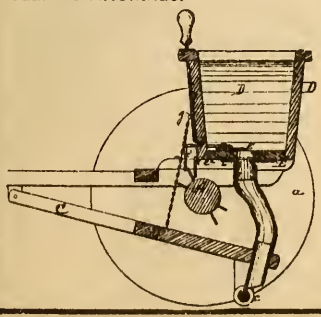

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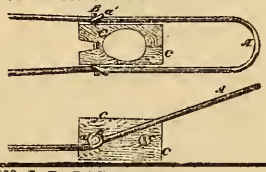

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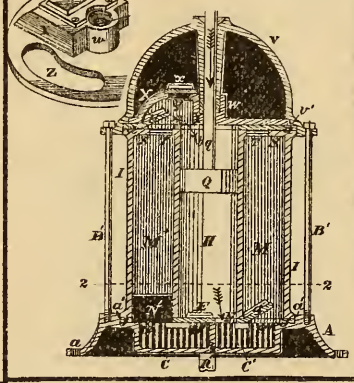

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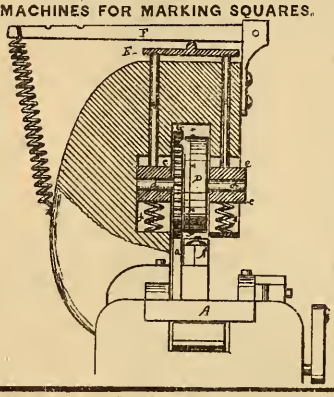

110,624 ELEAZAR BLESS.
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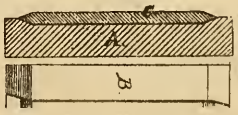

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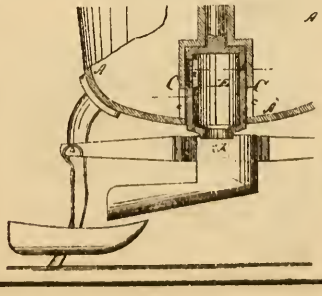

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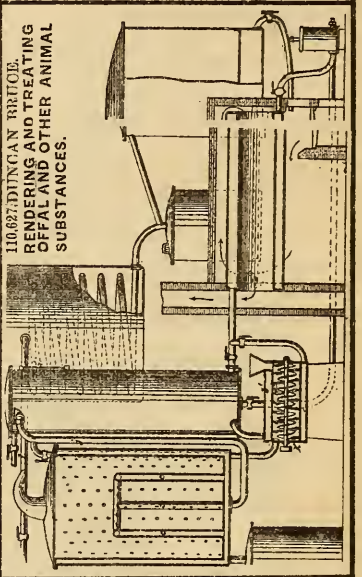

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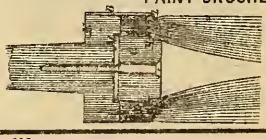

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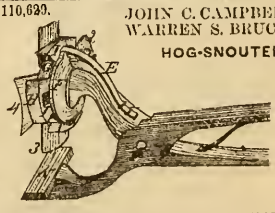

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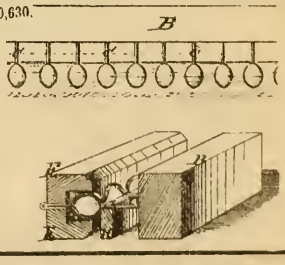
110,630.



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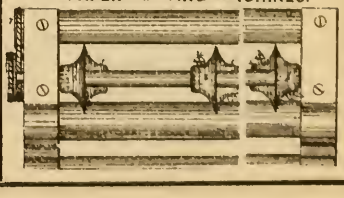
PAPER-CUTTING MACHINES.



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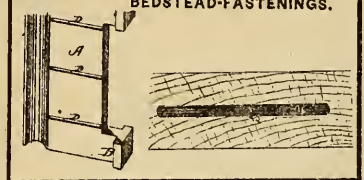

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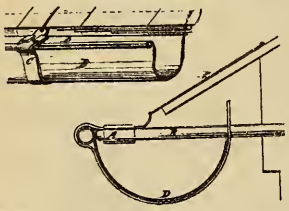

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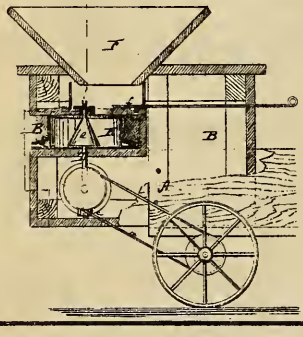

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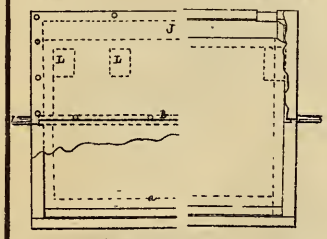

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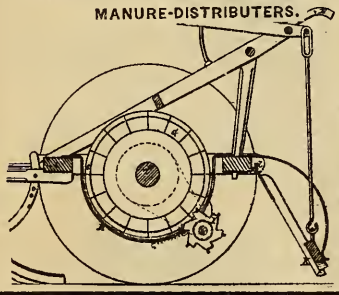

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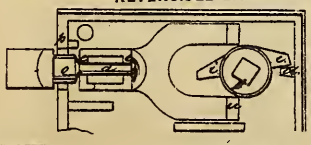

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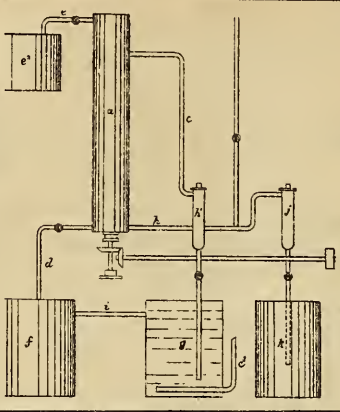

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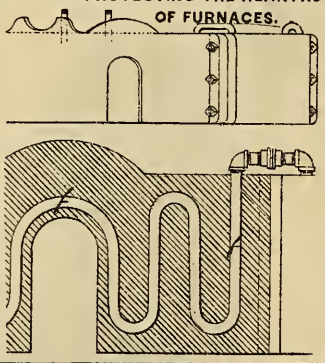

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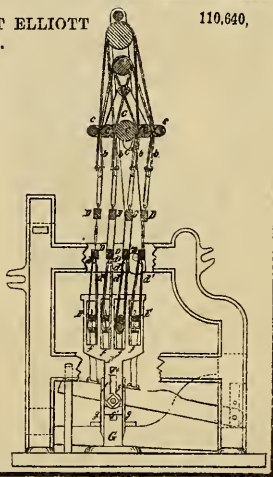

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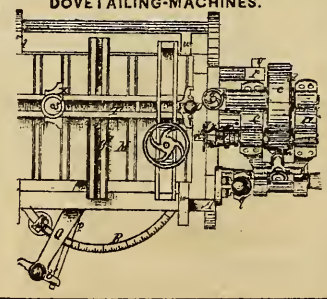
110,642. HARRY H. EVARTS. DOVETAILING-MACHINES.



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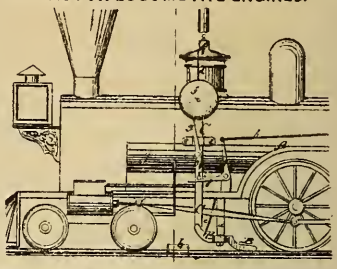

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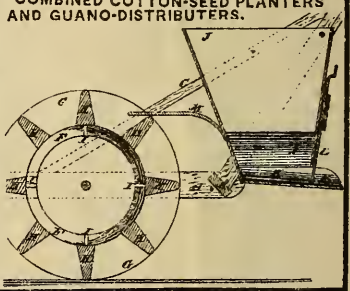

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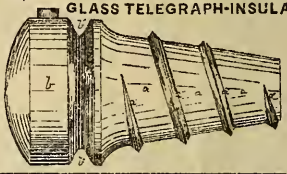

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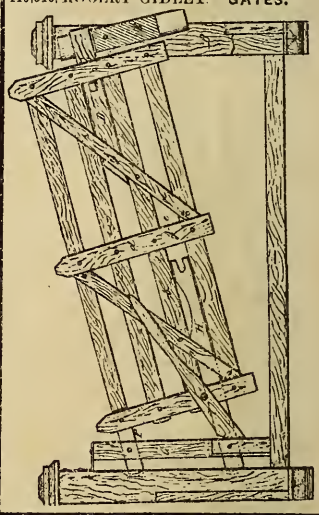

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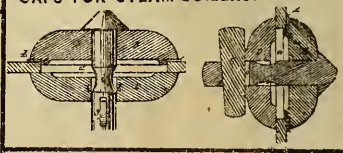

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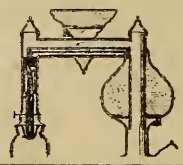

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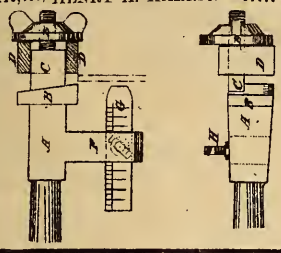
110,650, HENRY A. HARRIS. SAW-SETS.



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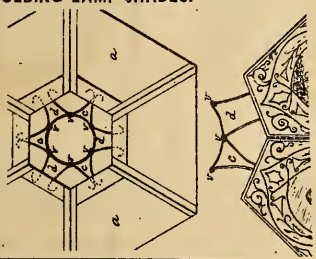

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110,653, SAMUEL HAYWARD.
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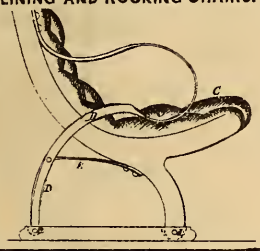

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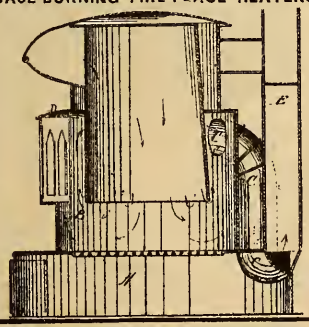
BASE-BURNING FIRE-PLACE HEATERS.



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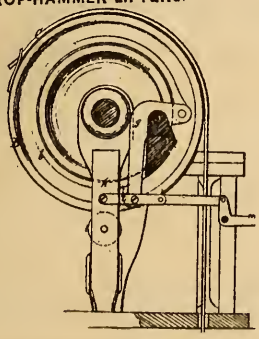

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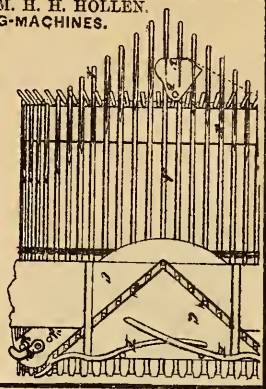
KNITTING-MACHINES.



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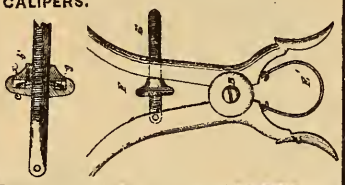

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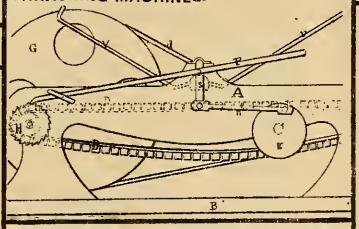

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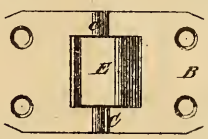

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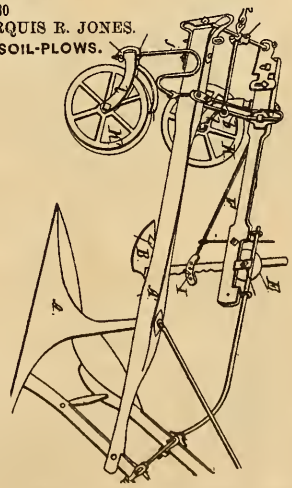
SUBSOIL-PLOWS.



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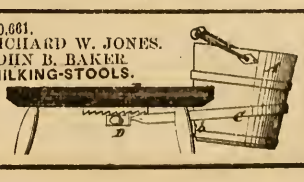
RICHARD W. JONES.
JOHN B. BAKER.
MILKING-STOOLS.



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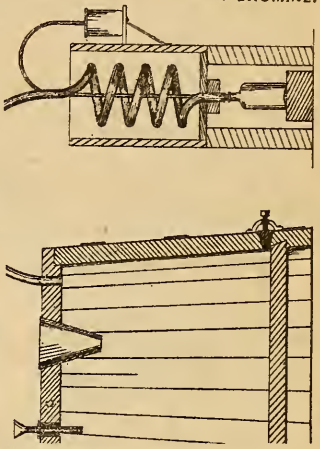
FOR THE MANUFACTURE OF BROMINE.



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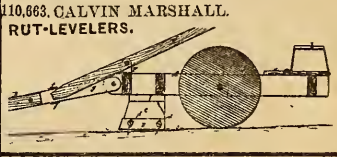

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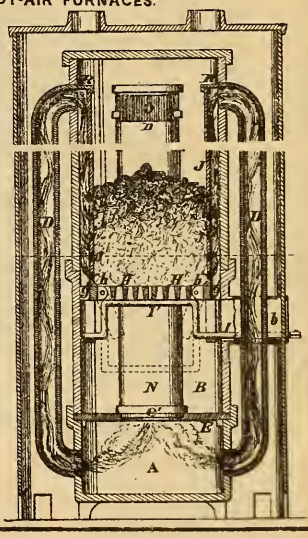

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COMPOSITIONS FOR ROOFING.

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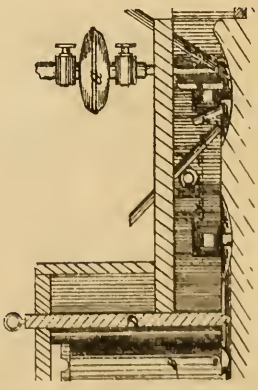
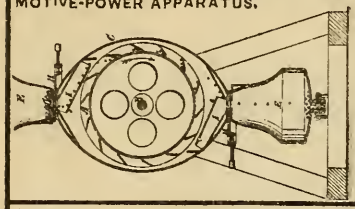
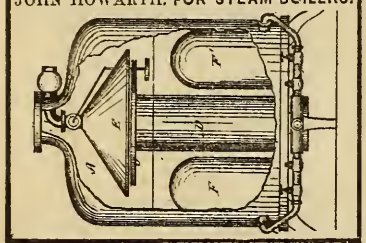
PURIFICATION OF CAST-IRON.



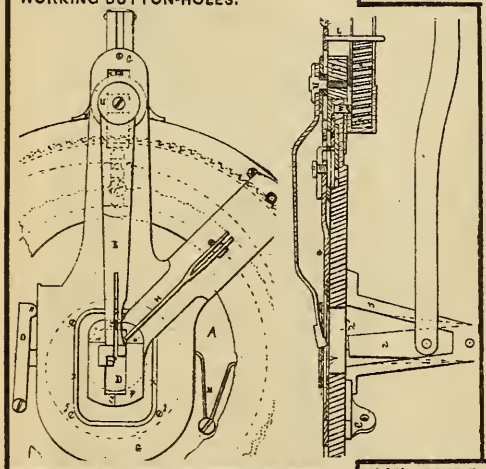
110,667, C. A. MILLS.
MOTIVE-POWER APPARATUS.



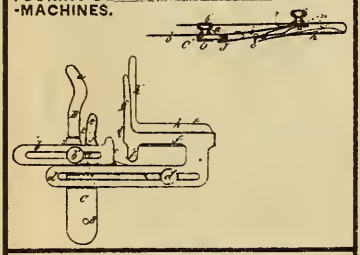
110,668, JOHN H. MILLS. JOHN HOWARTH. HOT-WATER FEEDERS FOR STEAM-BOILERS.



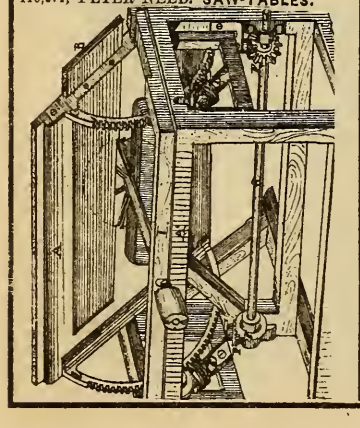
110,669, EUGÈNE MOREAU.
SEWING-MACHINES FOR WORKING BUTTON-HOLES.



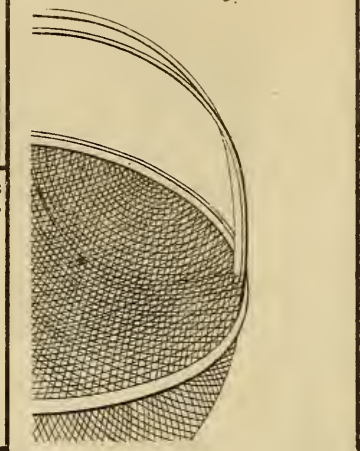
110,670, AARON MOREHOUSE.
TUCKING DEVICES FOR SEWING-MACHINES.



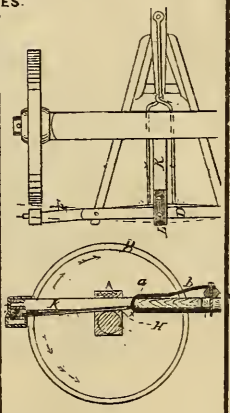
110,671, PETER NEEB. SAW-TABLES.



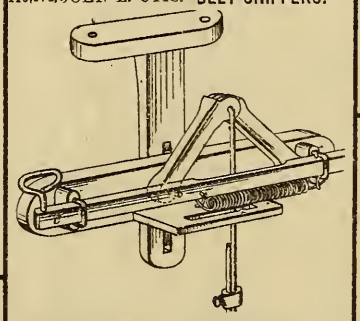
110,672. FLOUR-SIFTERS.
LUCY SAWYER. *Nourse.*



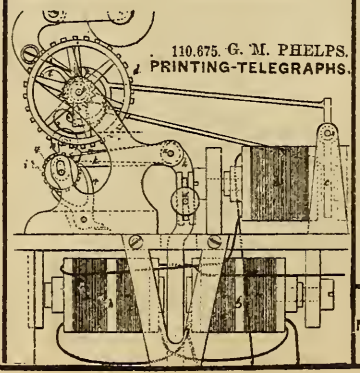
110,673, ANDREW V. D. H. OLIVER.
WAGON-BRAKES.

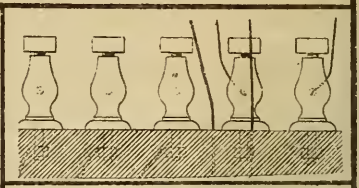


110,674, JOHN L. OTIS. BELT-SHIPPERS.

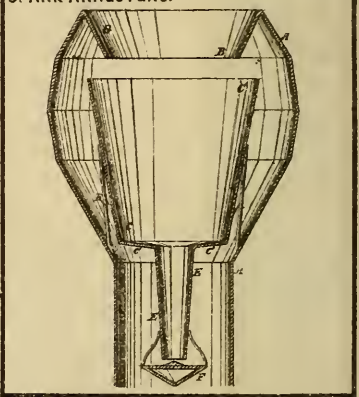


110,675. G. M. PHELPS.
PRINTING-TELEGRAPHS.

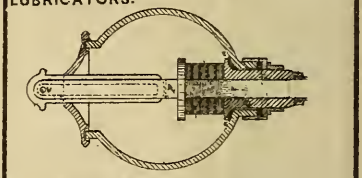




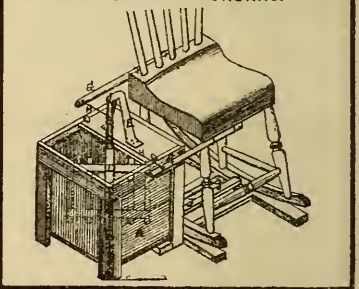
110,676, CHARLES L. PIERPONT.
SPARK-ARRESTERS.



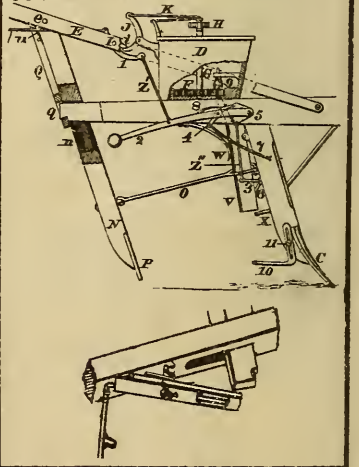
110,677, WM. PRATT.
N. BANGS WILLIAMS.
LUBRICATORS.



110,678, JAMES H. REED. CHURNS.

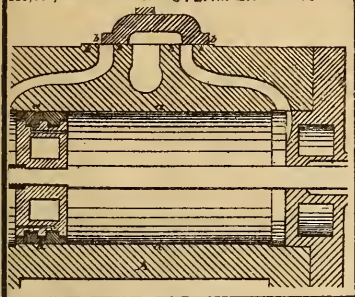


110,679, JOHN REICHELDERFER,
CORN-PLANTERS.

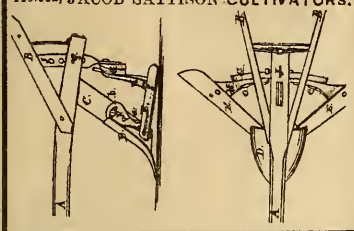


110,680. NATHANIEL B. RICE.
MANUFACTURE OF ACID PHOSPHATES FOR USE IN BAKING- POWDERS, &C.

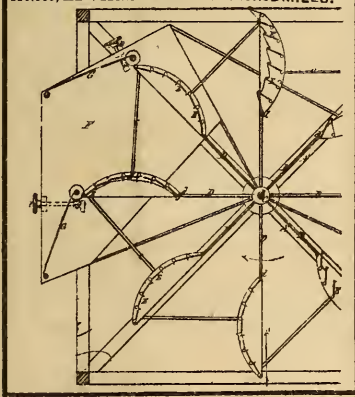
110,681, THOS. ROSS. STEAM-ENGINES.



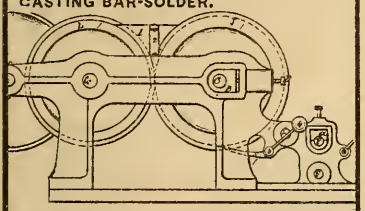
110,682, JACOB SATTISON. CULTIVATORS.



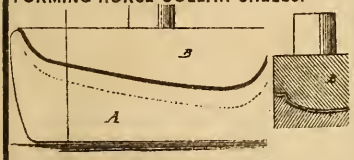
110,683, EDVARD SAVORAL. WINDMILLS.



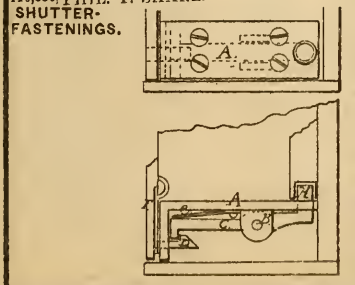
110,684, ABRAHAM SCHOENBERG. CASTING BAR-SOLDER.



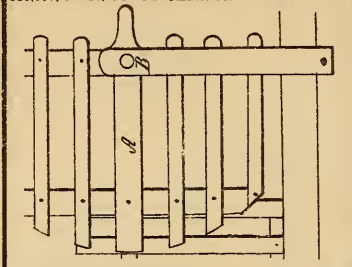
110,685, JOHN W. SCHWANER. DIES FOR FORMING HORSE-COLLAR SHELLS.



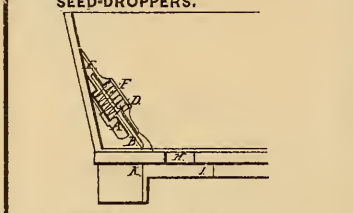
110,686, PHIL. T. SHARE. SHUTTER-FASTENINGS.



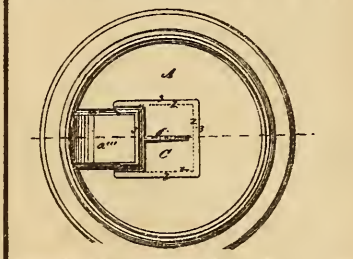
110,687, GEORGE A. SLATER. GATES.



110,688, H. M. SMITH. SEED-DROPPERS.

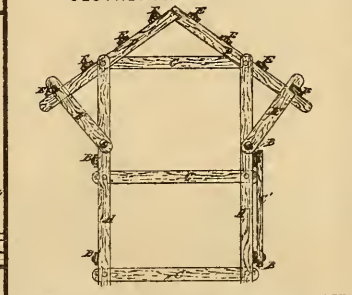


110,689, SAMUEL SMITH. PATTERNS FOR MOLDING STOVE-LIDS.

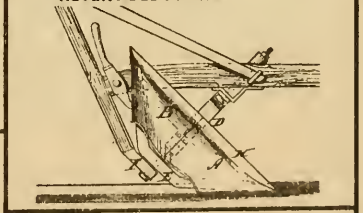


110,690, JACOB H. SMYSER. LUBRICATING COMPOUNDS.

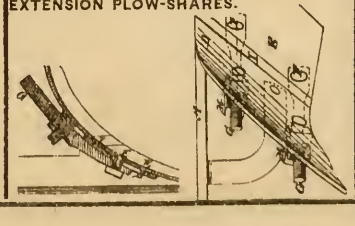
110,691, HENRY M. STEVENSON. CLOTHES-DRIERS.



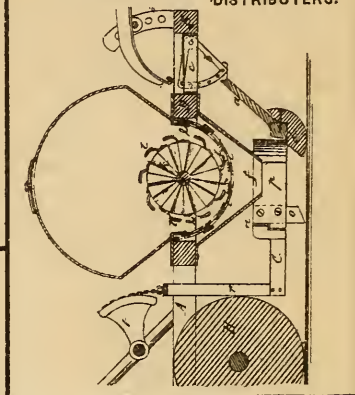
110,692, GEO. W. THOMPSON. REVERSIBLE PLOWS.



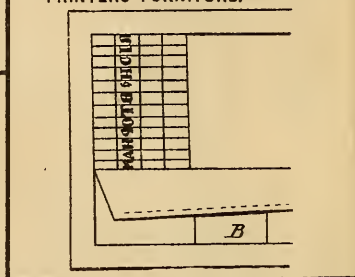
110,693, GEORGE W. THORP. EXTENSION PLOW-SHARES.



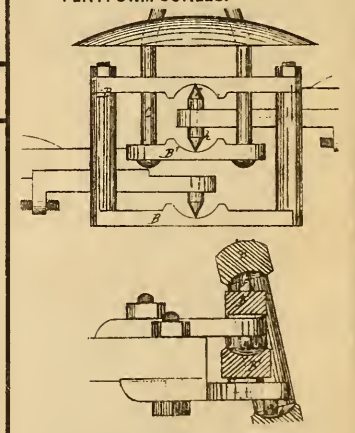
110,694, H. L. TILLERY. SEED-PLANTERS AND GUANO-DISTRIBUTERS.



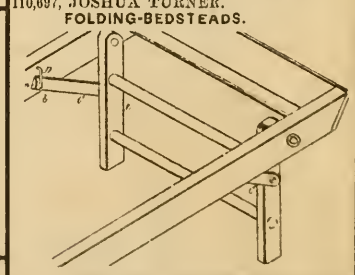
110,695, RICHD. B. TOPHAM. PRINTERS' FURNITURE.



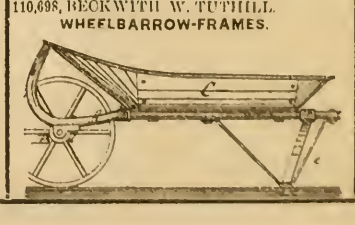
110,696, J. H. TRUEX. PLATFORM-SCALES.



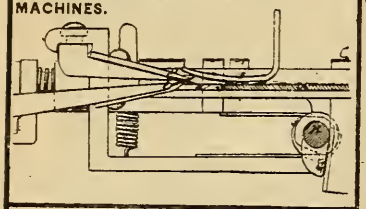
110,697, JOSHUA TURNER. FOLDING-BEDSTEADS.



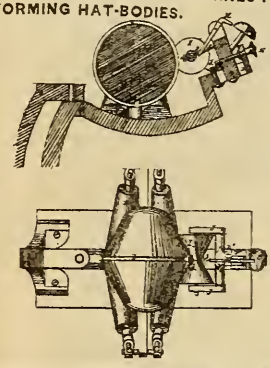
110,698, BECKWITH W. TUTHILL. WHEELBARROW-FRAMES.



110,699. WM. WALKER.
PLAITING DEVICES FOR SEWING-MACHINES.

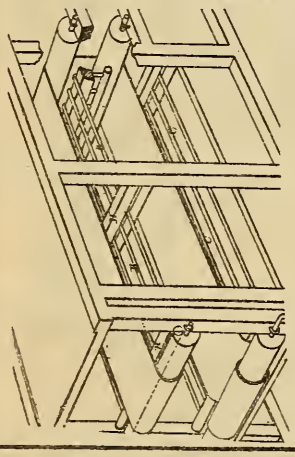


110,700. WM. C. WARING. ALARM-ATTACHMENTS FOR MACHINES FOR FORMING HAT-BODIES.

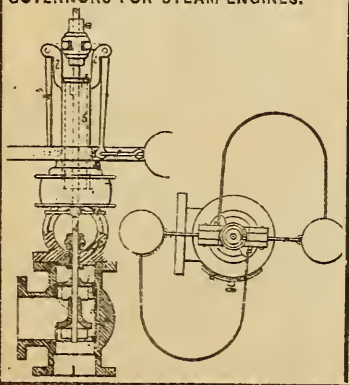


110,701. ALEXANDER WARNER.
HEEL-TAPS FOR BOOTS AND SHOES.

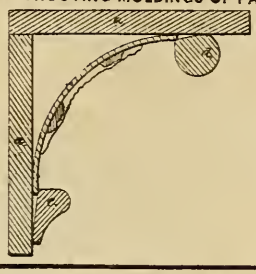
110,702 OLIVER C. WASHBURN. DRYING OIL-CLOTHS AND SIMILAR FABRICS.



110,703. CHARLES WATERS.
GOVERNORS FOR STEAM-ENGINES.

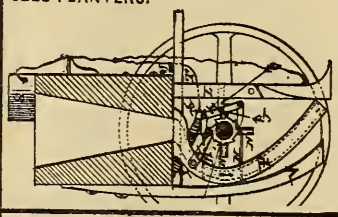


110,704. WILLIAM W. WEBSTER.
CONSTRUCTING MOLDINGS OF PAPER.

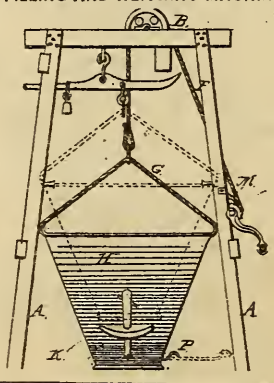


110,705. THOS. WELHAM. SAWS.

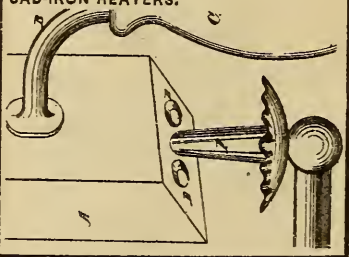
110,706. WILLIAM F. WEST.
SEED-PLANTERS.



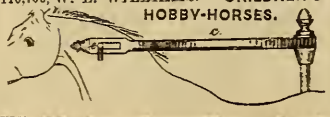
110,707. C. A. WHELAN.
CHARLES T. WAKELEY.
BAG-FILLING AND WEIGHING-MACHINES.



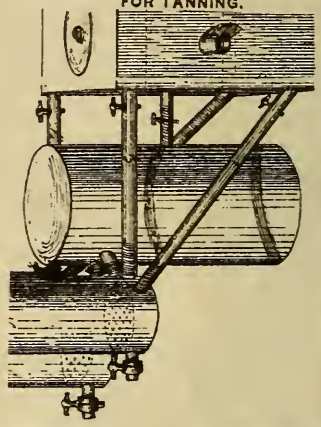
110,708 LEWIS WILKINSON
SAD-IRON HEATERS.



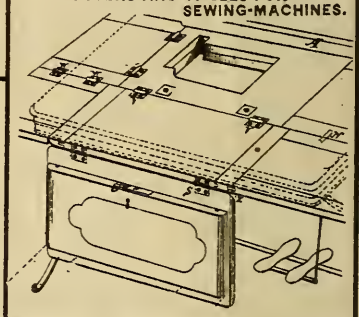
110,709. W. L. WILLIAMS. CHILDREN'S HOBBY-HORSES.



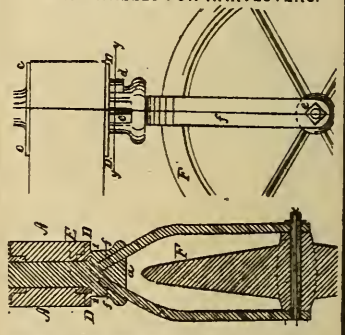
110,710. RILEY P. WILSON.
APPARATUS FOR MAKING EXTRACTS FOR TANNING.



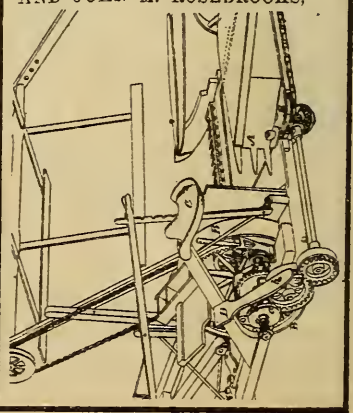
110,711. FRANCIS R. WOLFINGER.
COVERS AND TABLES FOR SEWING-MACHINES.



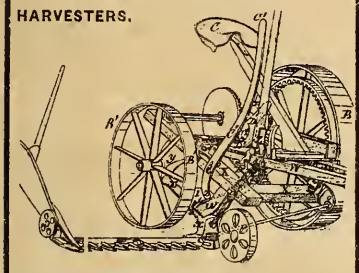
110,712. WALTER A. WOOD.
W. ANSON WOOD.
GUIDING-WHEELS FOR HARVESTERS.



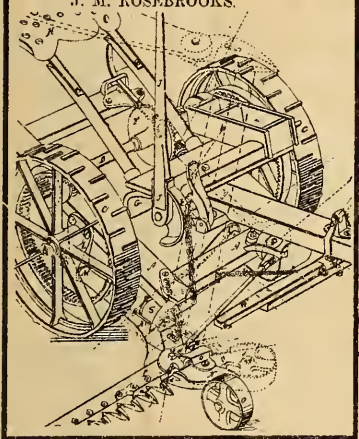
110,713. WALTER A. WOOD.
HARVESTERS.
WILLIAM ANSON WOOD.
AND JOHN M. ROSEBROOKS.



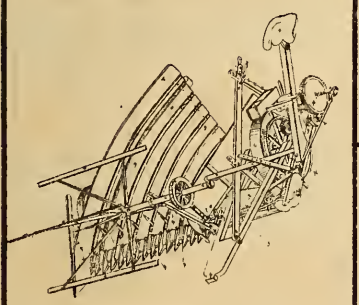
110,714, WALTER A. WOOD.
WM. ANSON WOOD.
JOHN M. ROSEBROOKS.
HARVESTERS.



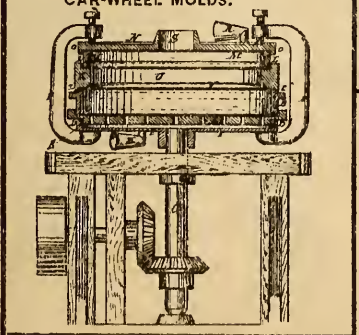
110,715. WALTER A. WOOD.
W. ANSON WOOD. HARVESTERS.
J. M. ROSEBROOKS.



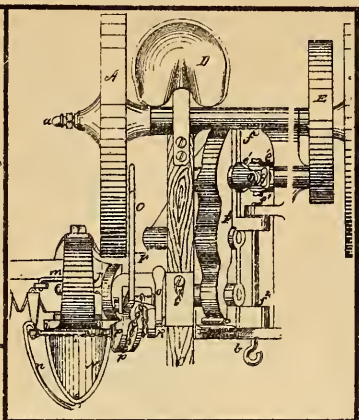
110,716. W. ANSON WOOD.
HARVESTER-RAKES.



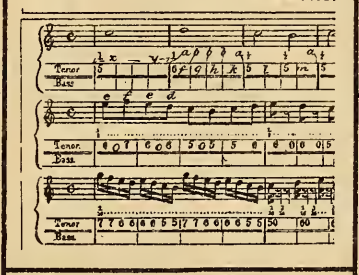
110,717. WILLIAM ELLISON WORTH.
CAR-WHEEL MOLDS.



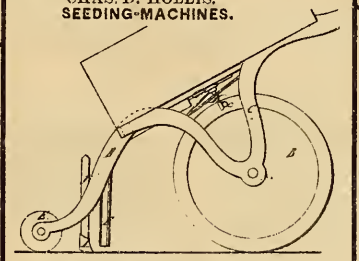
110,718 CHARLES M. YOUNG.
HARVESTERS



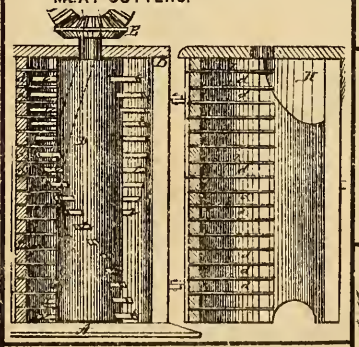
110,719 CARL FRIEDRICH ZIMMERMANN.
MUSICAL NOTATIONS FOR ACCORDEONS.



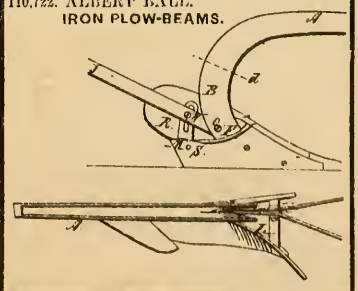
110,720, D. S. ALVORD.
CHAS. D. HOLLIS.
SEEDING-MACHINES.



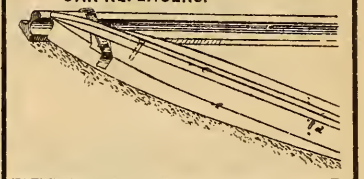
110,721 JEREMIAH S. ARTLEY.
MEAT-CUTTERS.



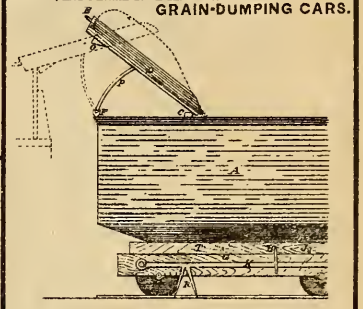
110,722. ALBERT BALL.
IRON PLOW-BEAMS.



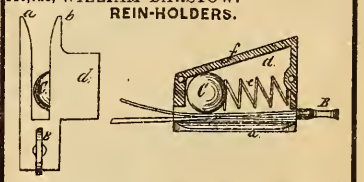
110,723 DAVID H. BALL.
JOHN BROOKS.
CAR-REPLACERS.



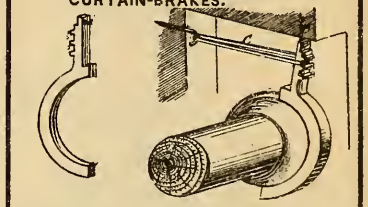
110,724. LEONARD BAMMERLIN.
GRAIN-DUMPING CARS.



110,725, WILLIAM BARSTOW.
REIN-HOLDERS.

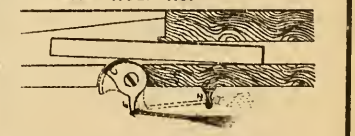


110,726. THOMAS S. BAYLIE.
GEORGE H. MAURER.
CURTAIN-BRAKES.



110,727, FR. BECK.
COATING AND DECORATING PAPER, CLOTH, AND OTHER MATERIALS.

110,728, JNO. H. BLOODGOOD.
SASH-HOLDERS.



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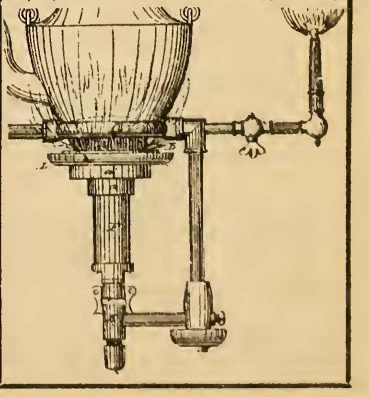
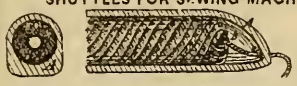
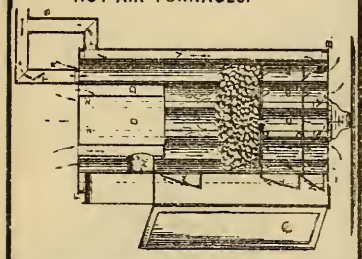


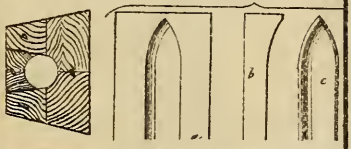
110,730, FREDERICK W. BOLAND.
SHUTTLES FOR SEWING-MACHINES.



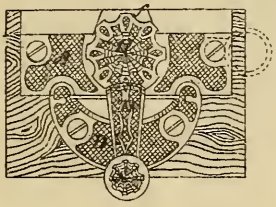
110,731, LANSING BONNELL
HOT-AIR FURNACES.



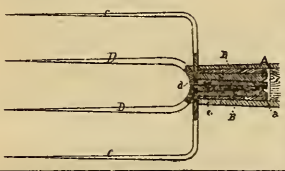
110,732, N. H. BORGFELDT, CIGAR-MOLDS.



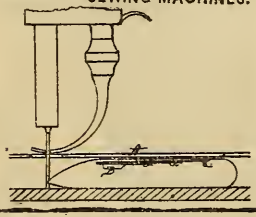
110,733 ELIAS K. BRECKENRIDGE.
FASTENERS FOR MEETING-RAILS OF SASHES.



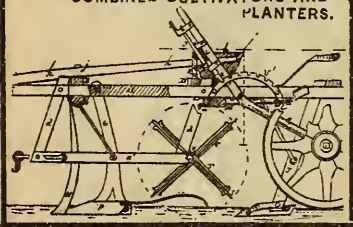
110,734. AMOS S. BRINSER.
HENRY BRICKER.
MANURE-FORKS.



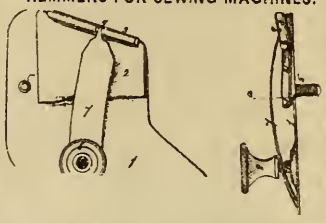
110,735 WILLIAM H. BUKER.
SEWING-MACHINES.



110,736 PETER BURRESS.
COMBINED CULTIVATORS AND PLANTERS.

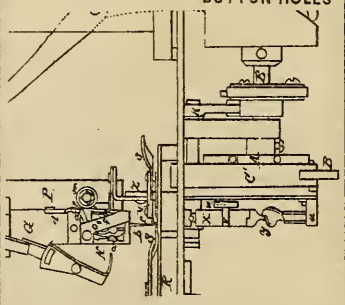


110,737. CYRUS CARLETON.
HEMMERS FOR SEWING-MACHINES.

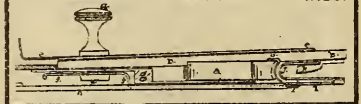


110,738 THO. W. CHANDLER.
PRESERVING WOODS.

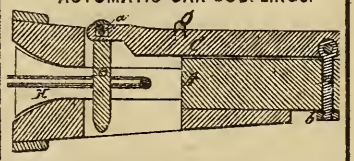
110,739 SHERMAN CLEMINSHAW.
SEWING-MACHINES FOR WORKING BUTTON-HOLES



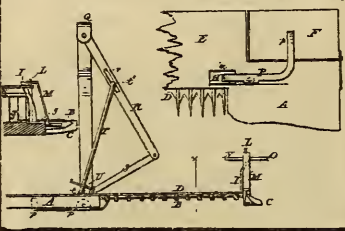
110,740, JACOB L. COLES.
BINDERS FOR SEWING-MACHINES.



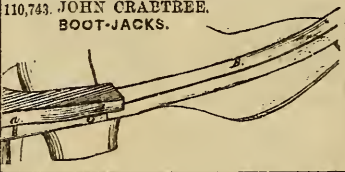
110,741, DAVID PITKIN CORY.
AUTOMATIC CAR-COUPLINGS.



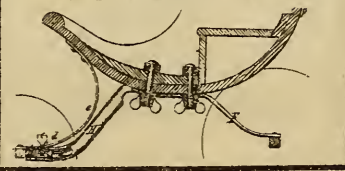
110,742, WM. ROBERT CORY, HARVESTERS.



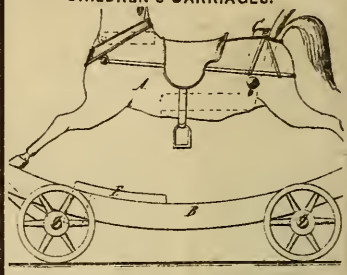
110,743. JOHN CRABTREE.
BOOT-JACKS.



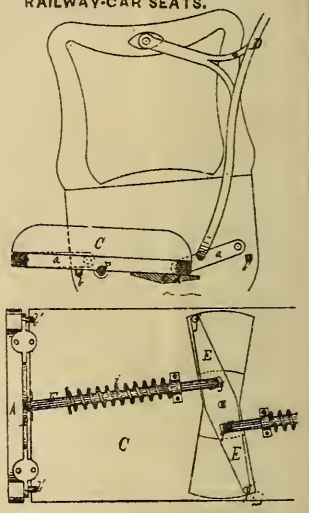
110,744. JOHN C. CRANDALL.
CHILDREN'S CARRIAGES.



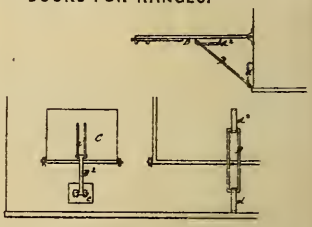
110,745, W. E. CRANDALL.
CHILDREN'S CARRIAGES.



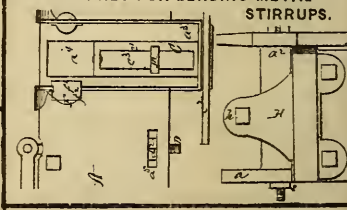
110,746, WILLIAM CRANDELL.
RAILWAY-CAR SEATS.



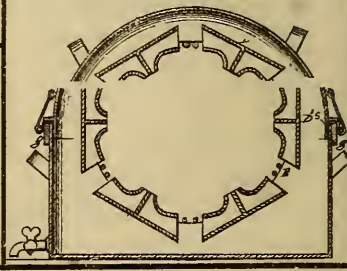
110,747, ROYAL E. DEANE.
THOMAS SHEDD.
DOORS FOR RANGES.



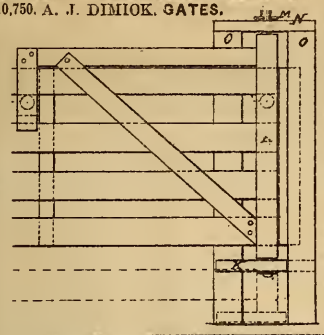
110,748, JOHN H. DE VALIN.
MACHINES FOR BENDING METAL STIRRUPS.



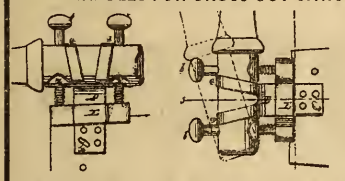
110,749. SAMUEL DE VEAU.
WASHING-MACHINES.



110,750. A. J. DIMICK. GATES.

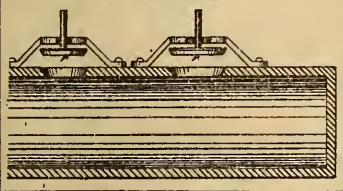


110,751, THOMAS S. DISSTON.
HANDLES FOR CROSS-CUT SAWS.

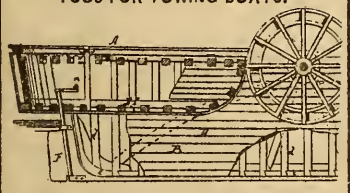


110,752, WM. DONALD. QUADRATS.

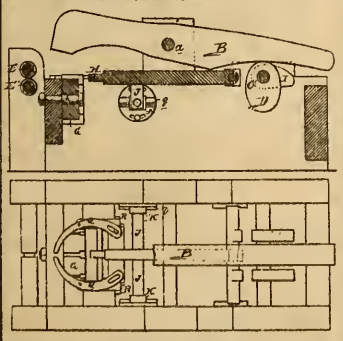
110,753. JOHN DOYLE.
FEED-WATER PIPES.



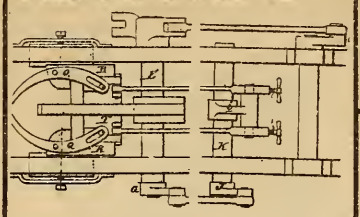
110,754, WALTER EVERSON.
TUGS FOR TOWING BOATS.



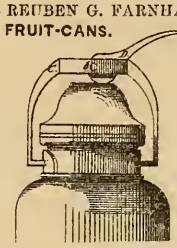
110,755. DAVID EYNON.
SPIKE-MACHINES.



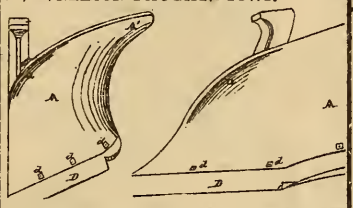
110,756. DAVID EYNON.
SPIKE-MACHINES.



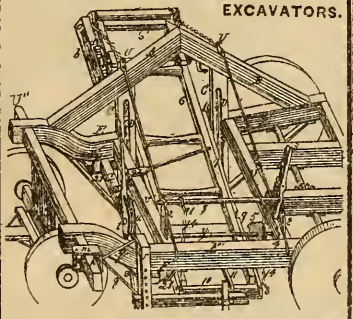
110,757, REUBEN G. FARNHAM.
FRUIT-CANS.



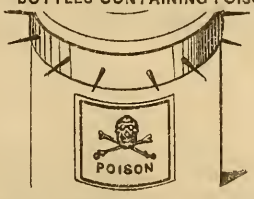
110,758, NELSON FAUGHT, PLOWS.



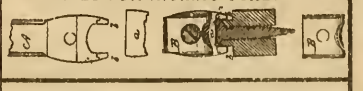
110,759, DAVID GILMORE.
WILLIAM W. FORREST.
EXCAVATORS.



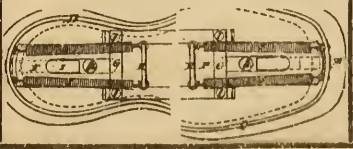
110,760, JOSEPH HARRISON.
PRECAUTIONARY ATTACHMENTS FOR BOTTLES CONTAINING POISON.



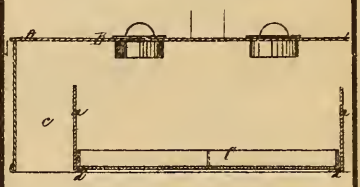
110,761, WM. HILLHOUSE.
GEO. W. BRIGGS.
DEVICES FOR NICKING SCREW-CAPS.



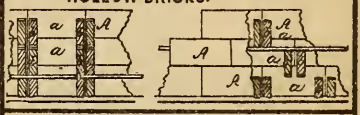
110,762, ARCHELAUS M. HOWE.
DEVICES FOR CUTTING SOLES FOR BOOTS AND SHOES.



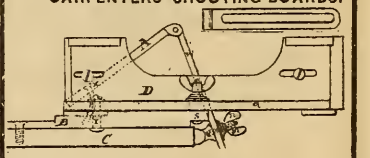
110,763, MICHAEL T. HYNES. BROILERS.

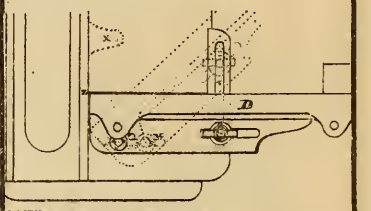


110,764 GEO. H. JOHNSON.
HOLLOW BRICKS.

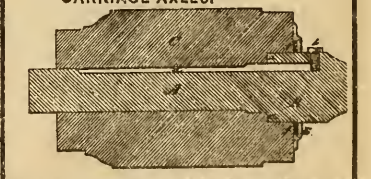


110,765. JOSEPH JONES.
CARPENTERS' SHOOTING-BOARDS.

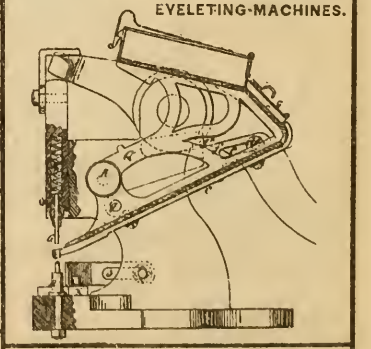




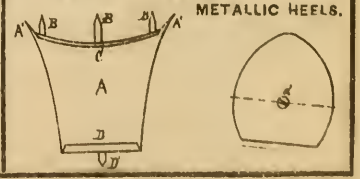
110,766, HENRY KILLAM.
CARRIAGE-AXLES.



110,767, A. KOMP.
EYELETING-MACHINES.



110,768. AUSTIN S. MANN.
METALLIC HEELS.



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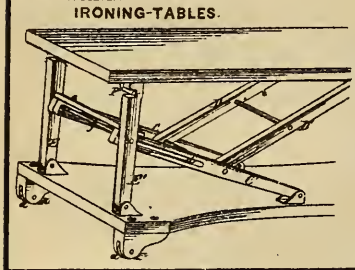
IRONING-TABLES.



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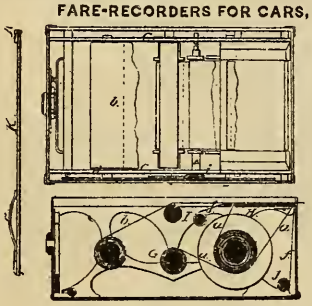
OSCAR S. PEASE.
FARE-RECORDERS FOR CARS, &c.



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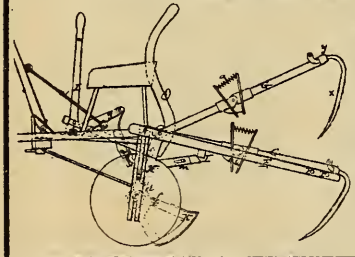
HORSE HAY-RAKES.



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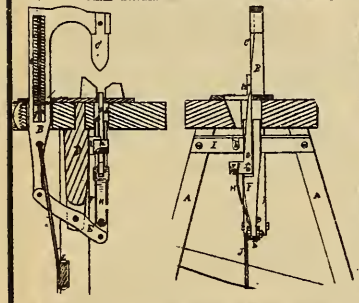
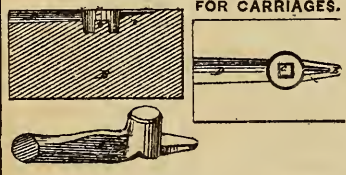
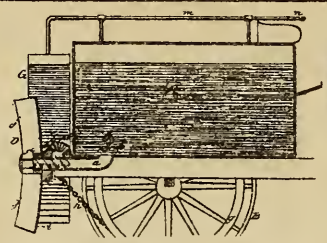


110,773, ROBERT R. MILLER.
METHOD OF FORMING BODY-LOOPS FOR CARRIAGES.



110,774, TOM. W. MITCHELL.
COMPOUNDS FOR DESTROYING WORMS IN THE COTTON-PLANT.

110,775, WM. C. MOORES.
STREET-SPRINKLERS.



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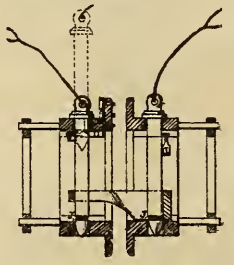
CAR-COUPLINGS.



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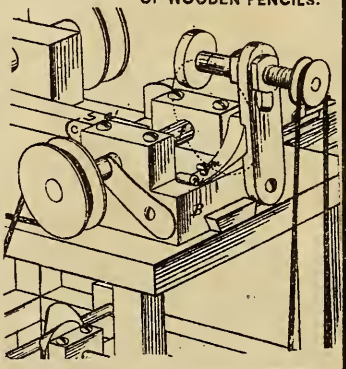
MACHINES FOR CUTTING THE ENDS OF WOODEN PENCILS.



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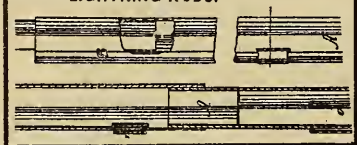
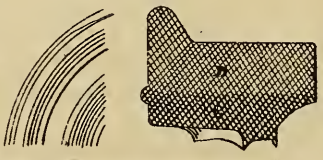
LIGHTNING-RODS.



110,779, CHANDLER NEEDHAM.
CASTING CAR-WHEELS.



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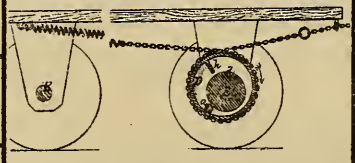
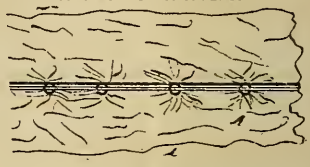
CAR-STARTERS.

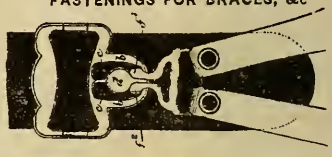


110,781, W. H. NOBLES.
HEATING-STOVES AND DRUMS.

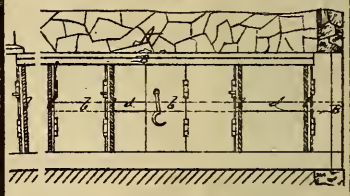
110,782, J. D. OPPENHEIMER.
HAIR-PUFFS OR ROLLS.



110,783 EDWARD LAWLEY PARKER.
FASTENINGS FOR BRACES, &c



110,784, HENRY PEREGOY. MILK-HOUSES.



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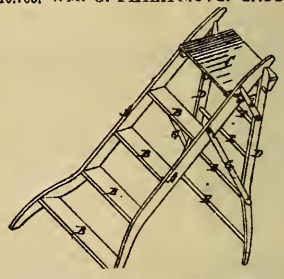
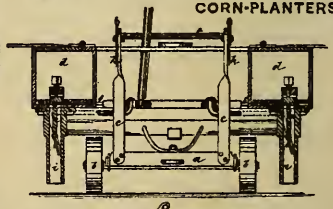
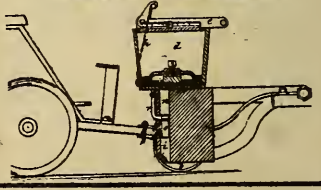


110,786, FIELDING W. POE, JR.
CORN-PLANTERS.





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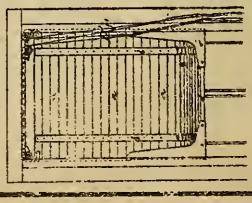
WINDOW-SHADES.



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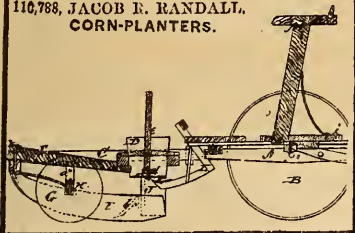
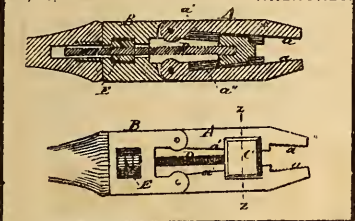
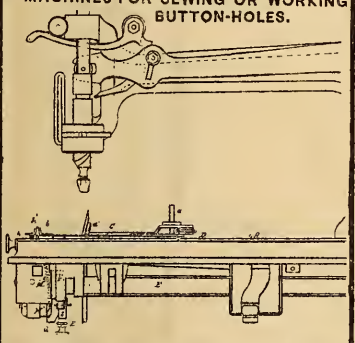
CORN-PLANTERS.



110,789, JOHN F. ROBERTSON. WRENCHES.



110,790 CHAS. E. ROBINSON.
MACHINES FOR SEWING OR WORKING BUTTON-HOLES.



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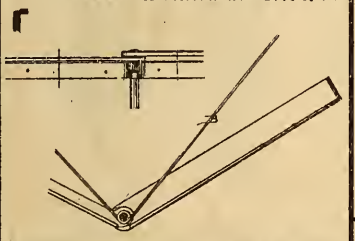
FRAMES FOR TRAVELING-BAGS, &c.



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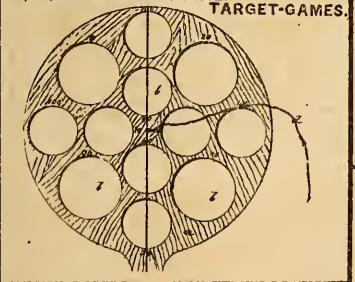
TARGET-GAMES.



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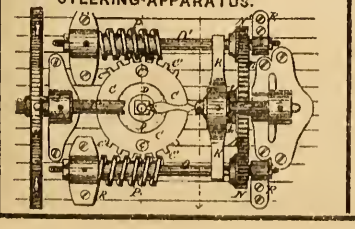
CARL A. MATHIESEN.
STEERING-APPARATUS.



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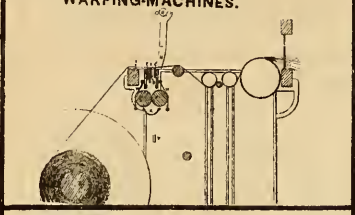
110,795, THOMAS SINGLETON.
WARPING-MACHINES.



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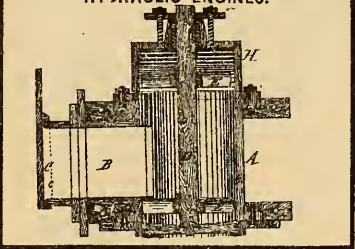
HYDRAULIC ENGINES.



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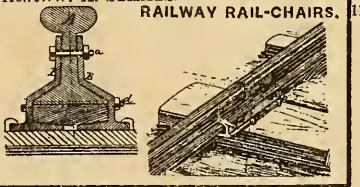
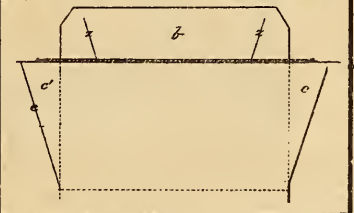
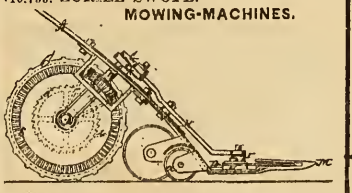
RAILWAY RAIL-CHAIRS.



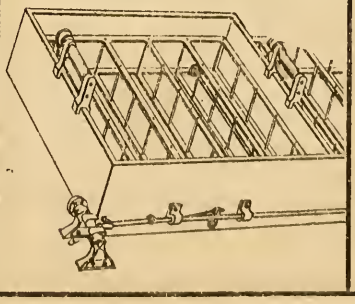
110,798 ROBERT S. STUBBS. ENVELOPES.



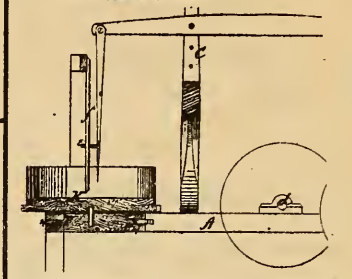
110,799. ZURIEL SWOPE.
MOWING-MACHINES.



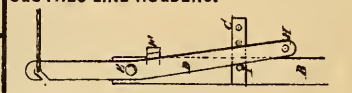
110,800, GEO. W. SYLVESTER.
APPARATUS AND PROCESSES OF CLEANING COTTON-WASTE, &c.



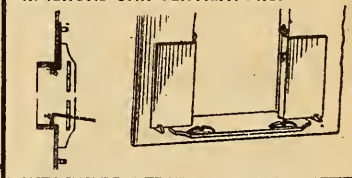
110,801, JAMES M. TAFT MEAT-CHOPPERS AND VEGETABLE-SLICERS.



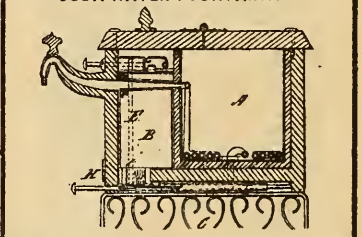
110,802 E. W. TALBOTT.
CLOTHES-LINE HOLDERS.



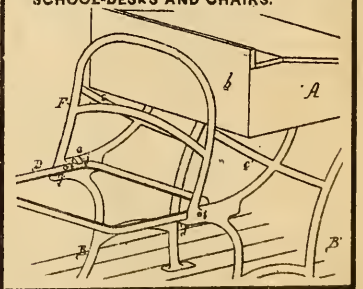
110,803, CLARK P. TILLINGHAST.
RAILROAD-CAR VENTILATORS.



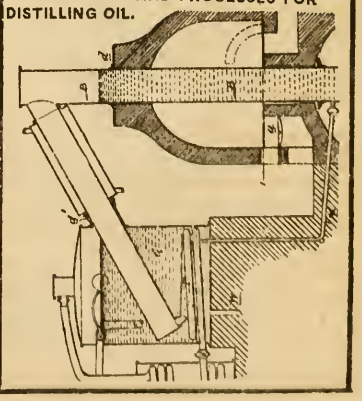
110,804, ANTONY TUMLER.
SODA-WATER FOUNTAINS.



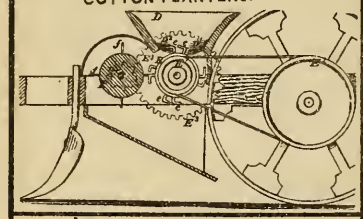
110,805, ALEXANDER SIDNEY VAUGHAN.
SCHOOL-DESKS AND CHAIRS.



110,806, WILLIAM G. WARDEN.
APPARATUS AND PROCESSES FOR DISTILLING OIL.



110,807, DWIGHT F. WELSH.
COTTON-PLANTERS.



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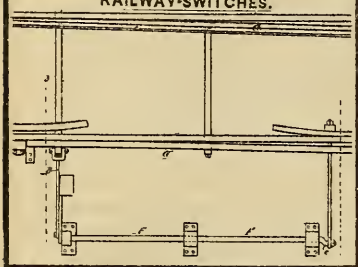
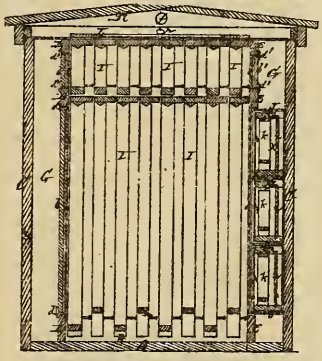
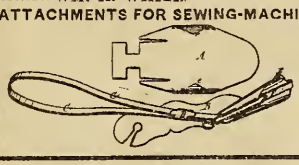
RAILWAY-SWITCHES.



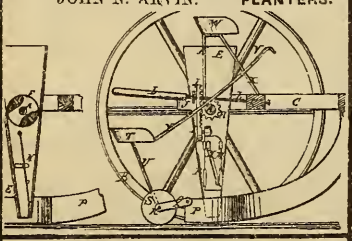
110,809. JOHN WHEELDON. BEE-HIVES.



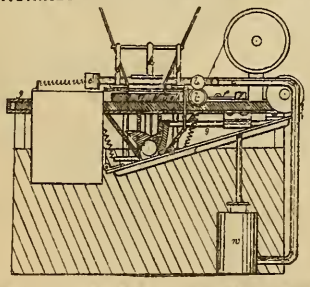
110,810. WM. H. WHITE.
ATTACHMENTS FOR SEWING-MACHINES.



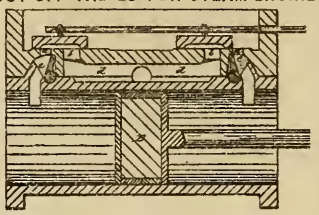
110,811, JOSEPH M. WHITMORE. JOHN N. ARVIN. CORN-PLANTERS.



110,812, CHARLES C. WILSON.
MACHINES FOR WRAPPING "KISSES," &c.



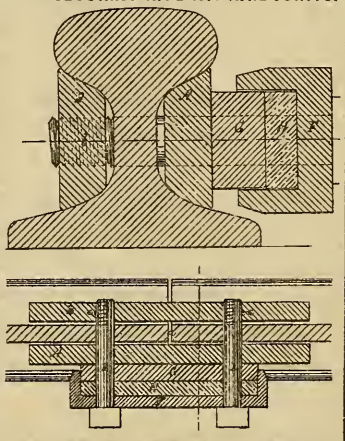
110,813. GEO. S. YOUNG.
CUT-OFF VALVES FOR STEAM-ENGINES.



110,814. GEO. S. YOUNG.
MILL-SPINDLE STEPS.

4,223, W. E. CRANDALL.
CHILDREN'S CARRIAGES.

4,224, LYMAN FAY.
SECURING RAILWAY-RAIL JOINTS.



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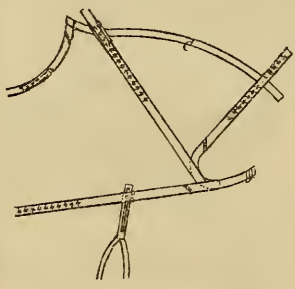

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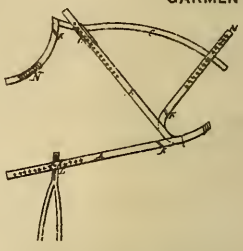

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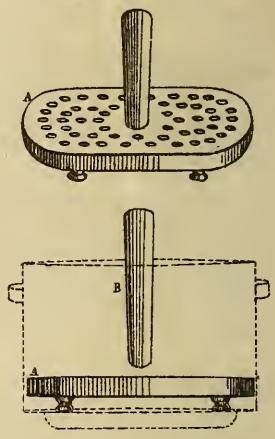

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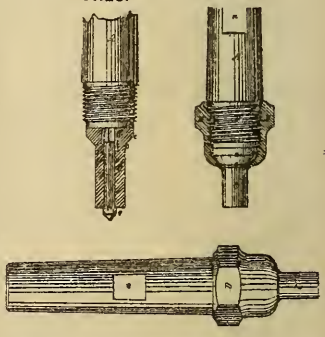
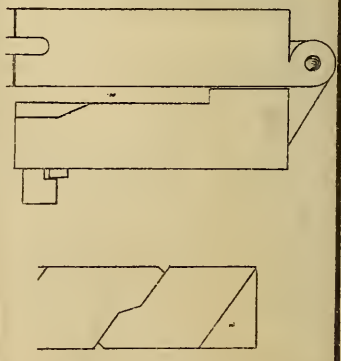


4,229, WILLIAM MEDD WATSON.
BLANKS FOR, AND DIES FOR MAKING, MOLD-BOARDS FOR PLOWS.



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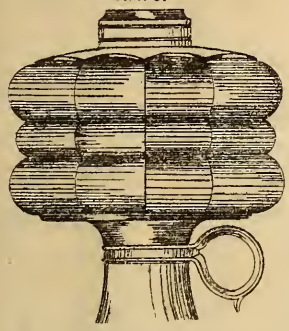
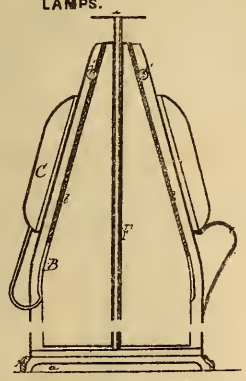
110,815, JOHN ADAMS.
GLASS LAMPS.



110,816 A. ALBERTSON.
LAMPS.



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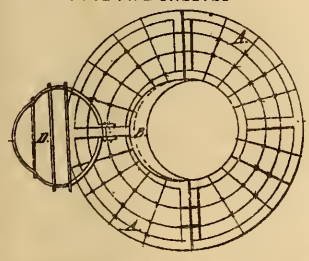

110,818 ORREN A. ANTHONY.
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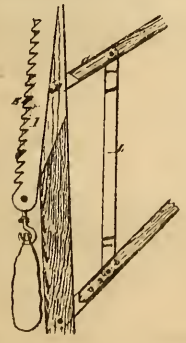

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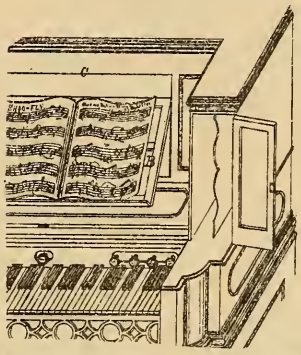
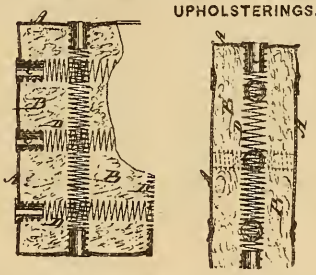
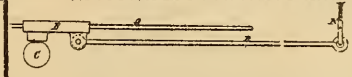


110,820, HORACE H. BARNES.
BEDS, CUSHIONS, AND OTHER UPHOLSTERINGS.



110,821, LUCIUS PHILETUS BARNES.
ADJUSTABLE DOOR-FASTENERS.



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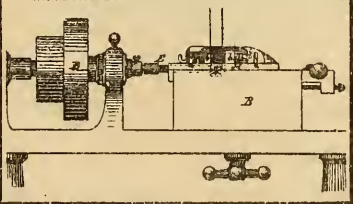
MACHINES FOR DRILLING SHUTTLES.



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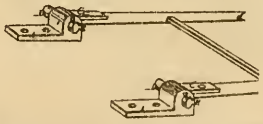
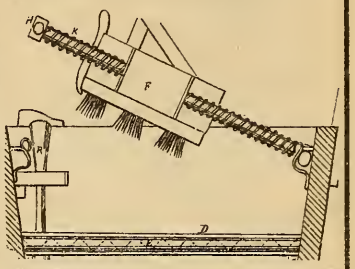
ADJUSTABLE LOCK-COUPLINGS FOR VEHICLES.



110,824 ROBERT E. CHERRINGTON.
COMPOUNDS FOR STOVE-POLISH.

110,825, SARAH J. CLARK.
WASHING-MACHINES.



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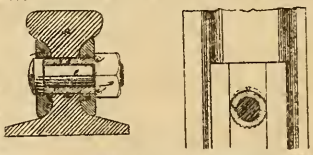

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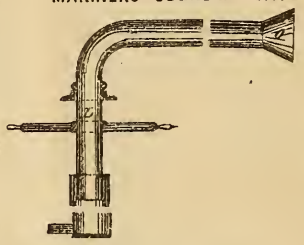
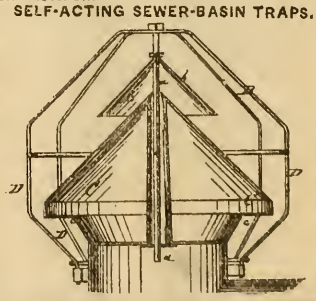
MARINERS' SOUND-INDICATORS.



110,828, DANIEL L. CORBIN.
RUBBER PADS FOR HORSE-SHOES.

110,829, MATTHEW K. COUZENS.
SELF-ACTING SEWER-BASIN TRAPS.



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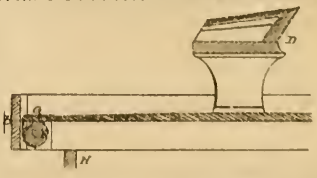
SPRING-BOTTOMS FOR WAGON-BODIES.



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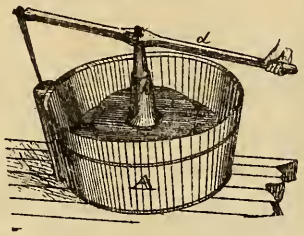

110,832 WILLIAM W. CROOM.
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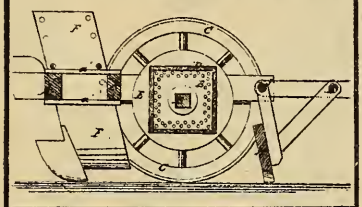

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110,834, WILLIAM DAHLEM.
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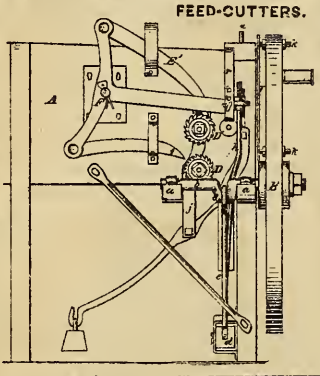

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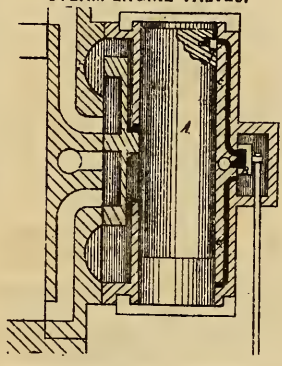

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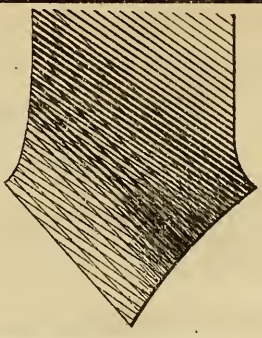
CULTIVATORS.



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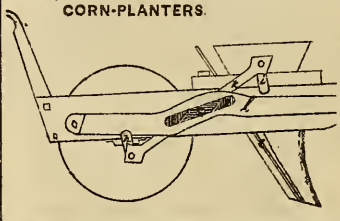
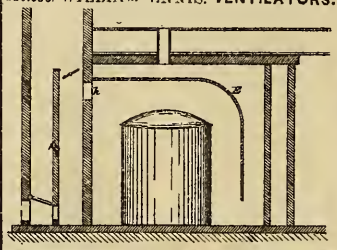


110,838. WILLIAM ENNIS. VENTILATORS.



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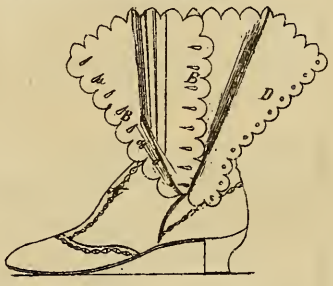
110,840, J. W. FISHER. SHOES.



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JONATHAN SNOOK.
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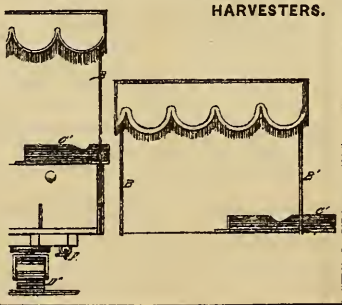

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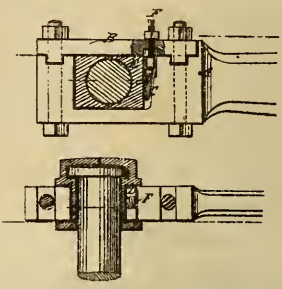

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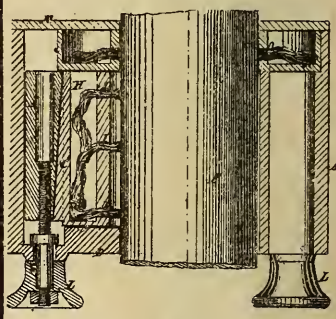

110,844. HUGO O. FRITSCH.
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110,845, ANTON FRITSCHE.
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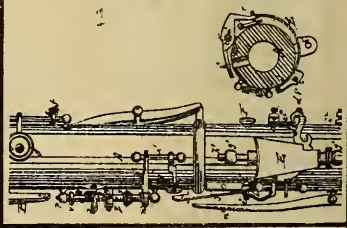

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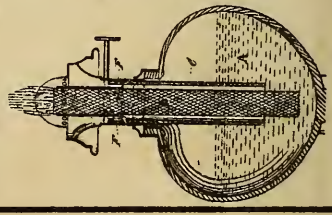
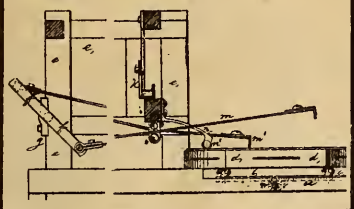


110,847. MARCUS B. GOULD.
HIDE-WORKING MACHINES.



110,848. HUGH B. GRUMLING
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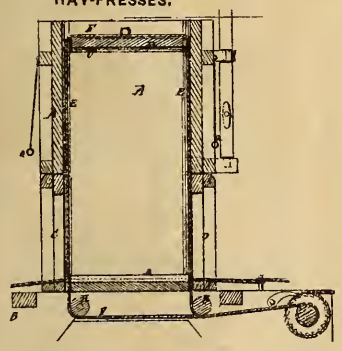
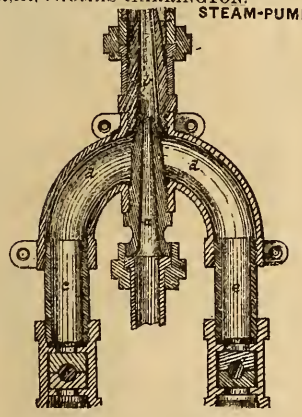
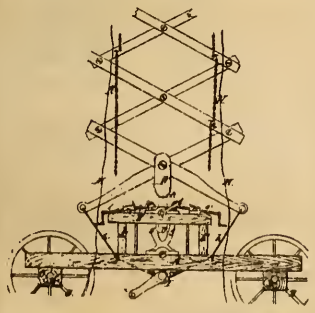
110,849. FINLAY F. HAMILTON.
HAY-PRESSES.



110,850. THOMAS HARRINGTON.
STEAM-PUMPS.

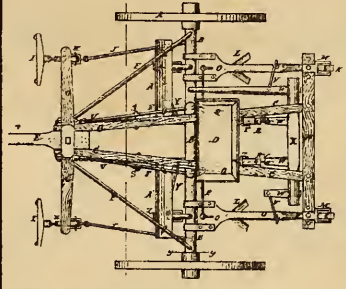


110,851. EDWARD J. HUDSON.
FIRE-ESCAPES.

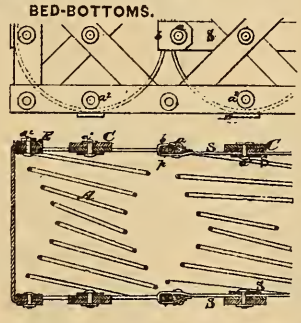


110,852. CARLETON B. HUTCHINS.
ARTIFICIAL STONE FOR PAVEMENTS, WALKS, FLOORS, &c.

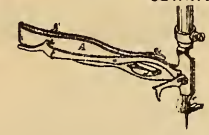
110,853. HUGH P. JORDAN.
SULKY-CULTIVATORS.



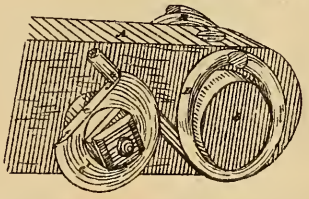
110,854. WILLIAM B. JUDSON
BED-BOTTOMS.



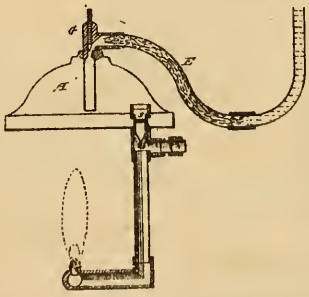
110,855. JACOB KARR.
NEEDLE-SETTERS AND THREADERS FOR SEWING-MACHINES.



110,856. DE LANCY KENNEDY.
DEVICES FOR SECURING THE TINES OF HAY-TEDDERS.



110,857. JOSHUA KIDD.
APPARATUS FOR GENERATING AND BURNING VAPOR FROM HYDRO-CARBONS.



110,858. MATTHEW H. KIMBALL.
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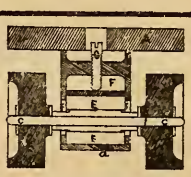
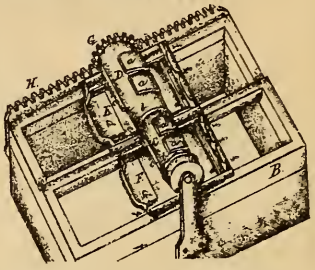
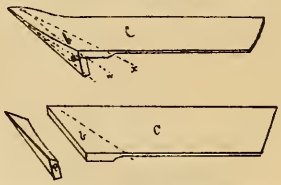


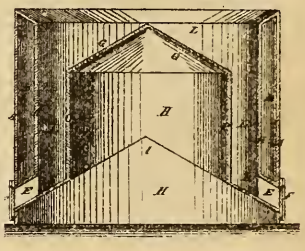
110,859. JOHN KOEHLER.
ROOFING-TILE PRESSES.



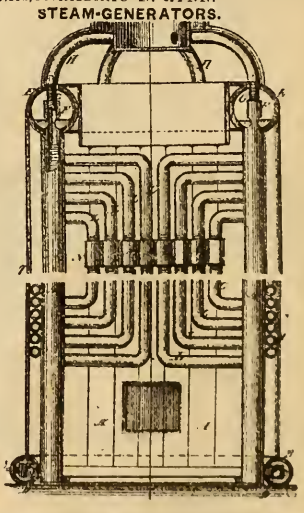
110,860. JOHN LANE. PLOWSHARES.



110,861. PHILIP LE GOULLON.
GRAVEL AND SAND-HEATERS.

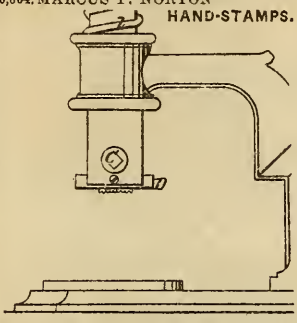


110,862. MIRABEAU N. LYNN.
STEAM-GENERATORS.

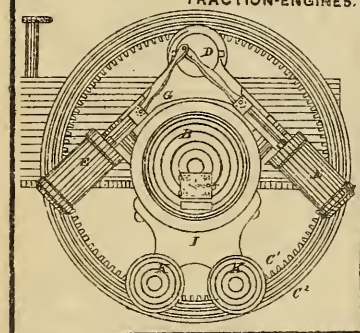


110,863. WM. H. MORSE.
CARRIAGE-CURTAIN FASTENERS.

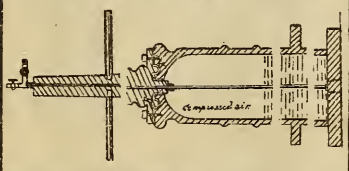
110,864. MARCUS P. NORTON
HAND-STAMPS.



110,865. T. T. PROSSER.
TRACTION-ENGINES.

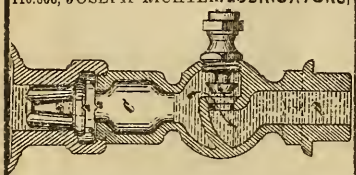


110,866. FRANCIS M. RANDELL.
APPARATUS FOR SUPPLYING NAPHTHA TO VAPOR-BURNING STREET-LAMPS.

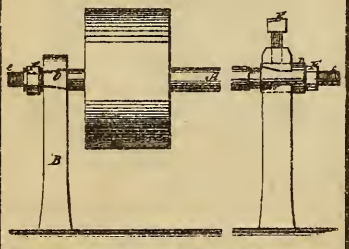


110,867. T. C. RICHARDS. PICTURE-NAILS.

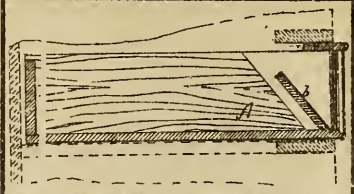
110,868. JOSEPH RICHTER. LUBRICATORS.



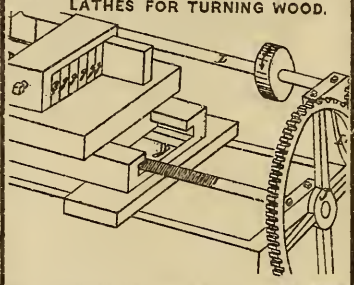
110,869 ELIAS C. RISHEL.
DENTAL LATHES.



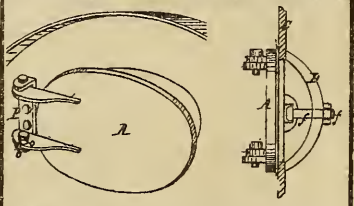
110,870. ROBERT J. ROBERTS.
DRAWERS FOR STORES.



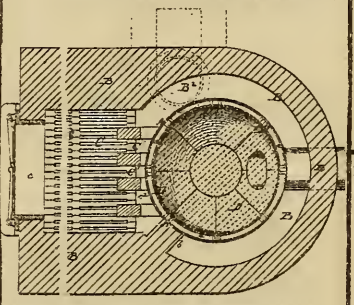
110,871 IRA ROOD.
LATHES FOR TURNING WOOD.



110,872. JOHN D. SANSOM.
MAN-HOLE PLATES FOR STEAM-BOILERS.

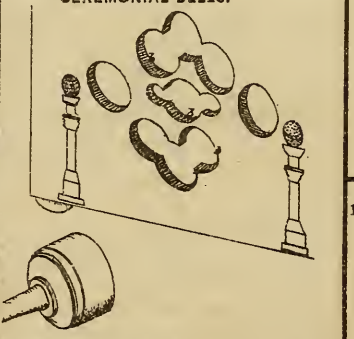


110,873. GEORGE SINCLAIR.
APPARATUS FOR BOILING AND TREATING PAPER-STOCK.

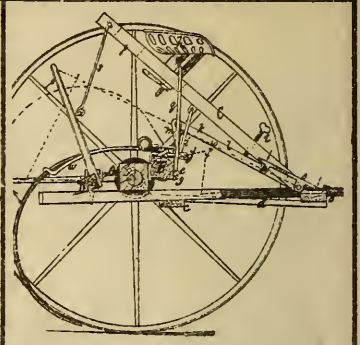


110,874. ANDREW H. SMITH. PISTONS.

110,875. JOHN W. SMITH.
CEREMONIAL BELLS.



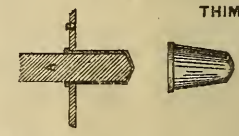
110,876. J. C. STODDARD.
HORSE HAY-RAKES.



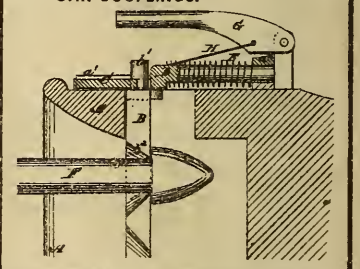
110,877 CANCELED.

110,878. WM. H. TOWERS.
METHODS OF COATING SAD-IRONS, &c.

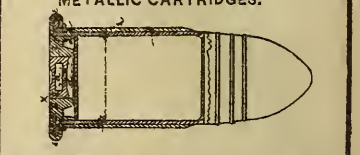
110,879 EDWARD B. TOWLE.
THIMBLES.



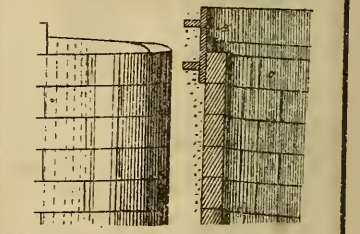
110,880. GEORGE H. WEEKS.
CAR-COUPLINGS.



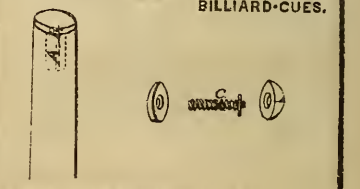
110,881. ROLLIN WHITE.
METALLIC CARTRIDGES.



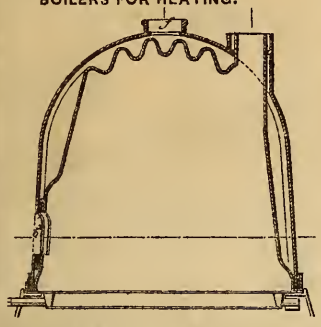
110,882. HENRY WHITESTONE.
CURBING FOR EXCAVATIONS.



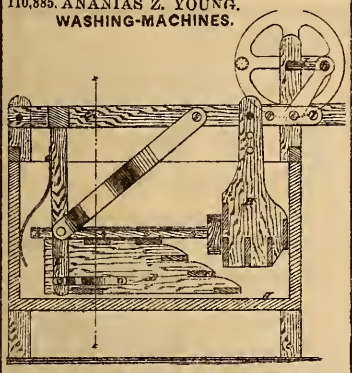
110,883 OLIVER C. WILBUR, JR.
FASTENINGS FOR THE TIPS OF BILLIARD-CUES.



110,884, JOHN G. WILSON.
BOILERS FOR HEATING.



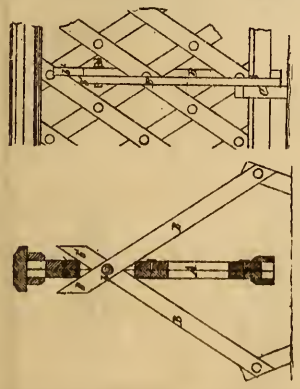
110,885. ANANIAS Z. YOUNG.
WASHING-MACHINES.



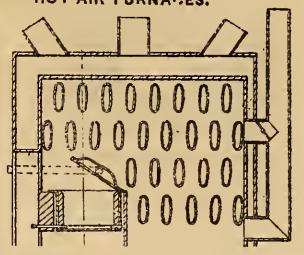
110,886, ALBERT Q. ADAMS.
SNOW-CHOVELS.

110,887, THOMAS W. ALLEN.
CHARGERS FOR SHOT-POUCHES.

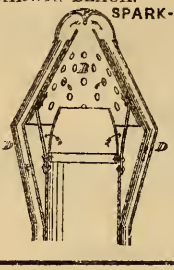
110,888, C. M. BALLARD. MYRON MOREHOUSE. FENCES.



110,889. WM. D. BARTLETT.
HOT-AIR FURNACES.

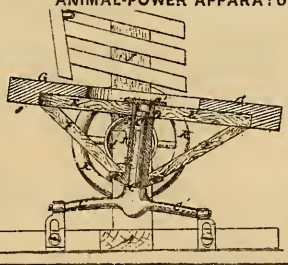


110,890, DARWIN BEACH.
SPARK-ARRESTERS.

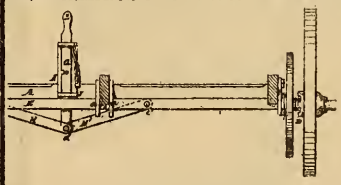


110,891 T. W. BRACHER.
EMBOSSING HAT-LININGS.

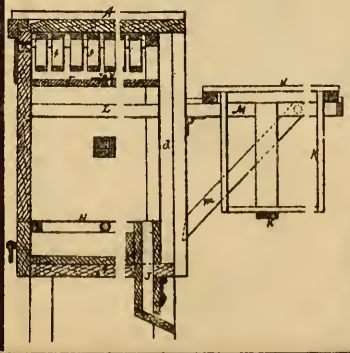
110,892. ORVILLE M. BROCK.
ANIMAL-POWER APPARATUS.



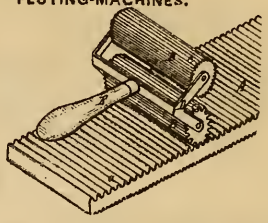
110,893. ALZIRUS BROWN. HAY-TEDDERS.



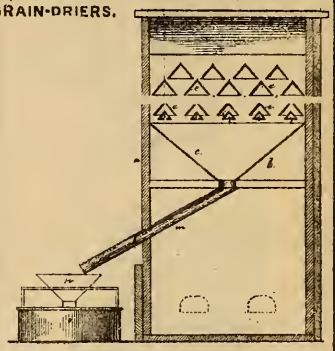
110,894. GUSTAVUS A. BROWN. BEE-HIVES.
FRANCIS A. McCALLEN.



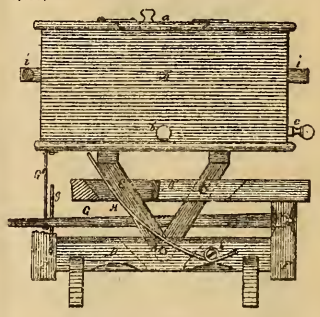
110,895. ABNER BURBANK.
FLUTING-MACHINES.



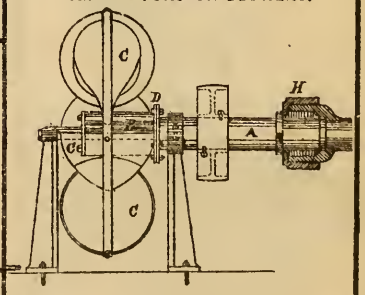
110,896. LEWIS S. CHICHESTER.
GRAIN-DRIERS.



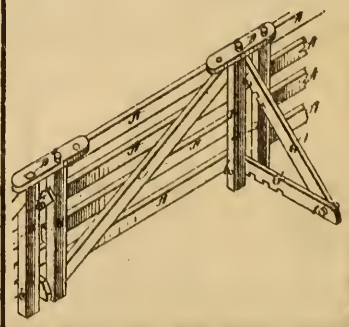
110,897. JACOB CLARK. CHURNS.



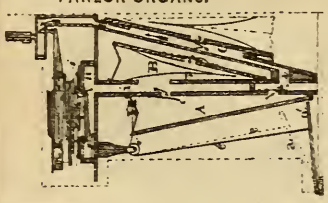
110,898, JOHN F. COLLINS.
VENTILATORS OR BLOWERS.



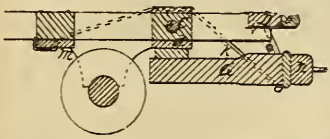
110,899, THOMAS C. COLLINS. FENCES.



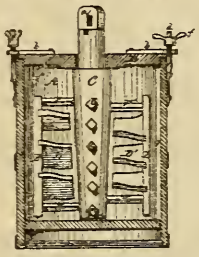
110,900. JAMES CORDLEY.
PARLOR-ORGANS.



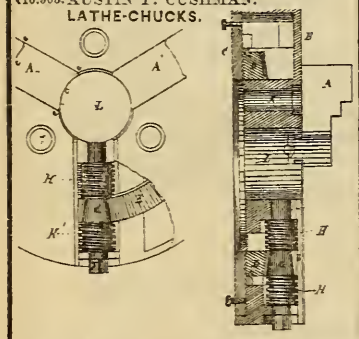
110,901. R. A. COWELL.
RAILWAY-CAR PLATFORMS.



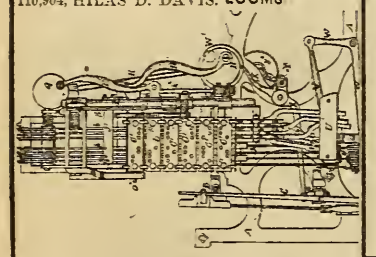
110,902. JOHN CRAM. CHURNS.



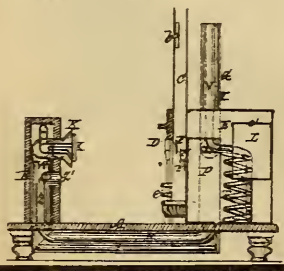
110,903. AUSTIN F. CUSHMAN.
LATHE-CHUCKS.



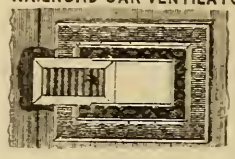
110,904. HILAS D. DAVIS. LOOMS.



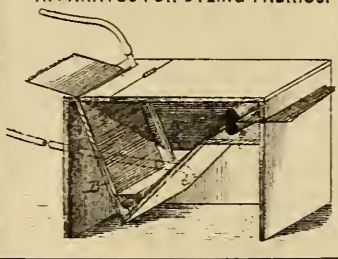
110,905. EDWARD MORTIMER DEEY.
VENTILATORS.



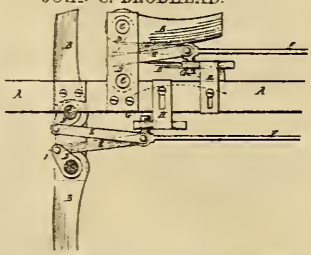
110,906. JNO. M. DEXTER.
RAILROAD-CAR VENTILATORS.



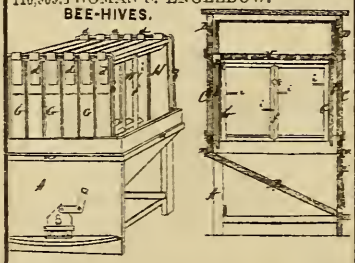
110,907. THOMAS M. DROWN.
APPARATUS FOR DYEING FABRICS.



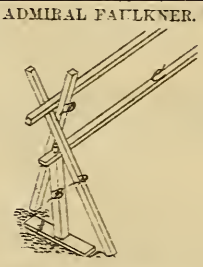
110,908. EDGAR ELTINGE. PROPELLERS.
JOHN C. BRODHEAD.



110,909. THOMAS S. ENGLEDOW.
BEE-HIVES.



110,910. ADMIRAL FAULKNER. FENCES.



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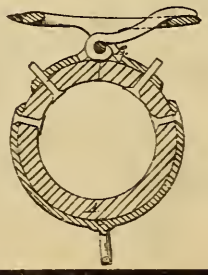
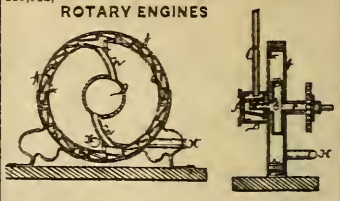
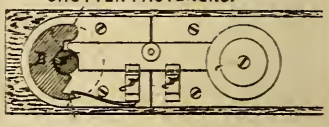
SHAFT-TUGS.



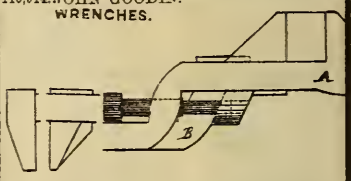
110,912. SAMUEL GIBSON.
ROTARY ENGINES



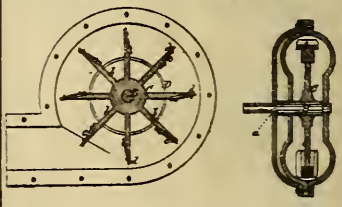
110,913. EBENEZER A. GOODES.
SHUTTER-FASTENERS.



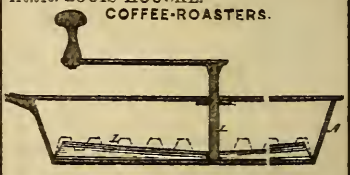
110,914. JOHN GOODIN.
WRENCHES.



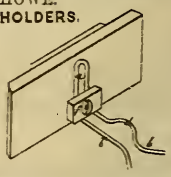
110,915. GARDNER C. HAWKINS.
AIR-ENGINES OR FAN-BLOWERS.



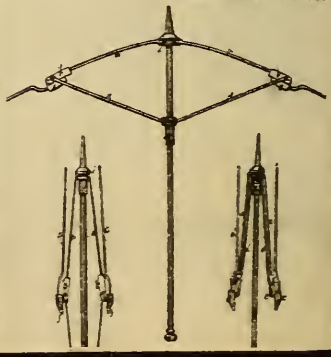
110,916. LOUIS HOUCKE.
COFFEE-ROASTERS.



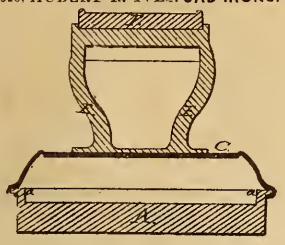
110,917. ZADOK HOWE.
BROOM-HOLDERS.



110,918. ALGERNON S. HUBBELL.
JOINTS FOR FRAMES OF
FOLDING-UMBRELLAS.

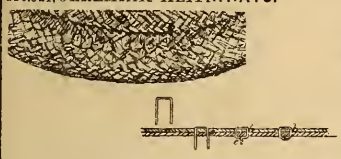


110,919. HUBERT R. IVES. SAD-IRONS.

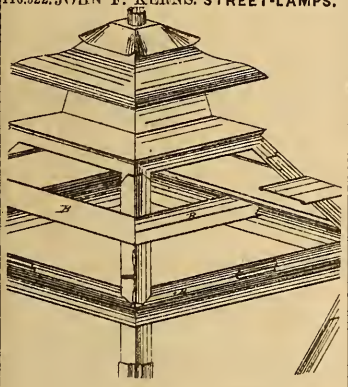


110 920 W. A. IVES. AUGER-HANDLES.

110,921. JEREMIAH KEITH. HATS.



110,922. JOHN F. KERNS. STREET-LAMPS.



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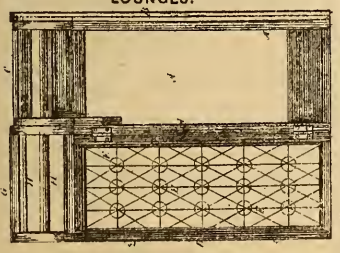
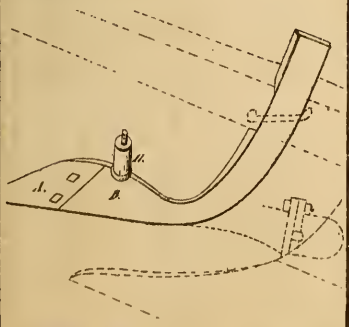
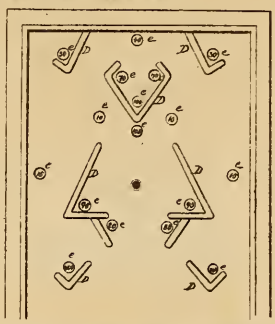


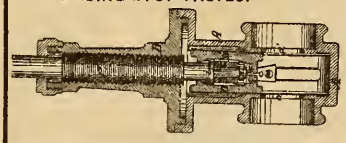
110,924 JOHN M. LEONARD. PLOWS.



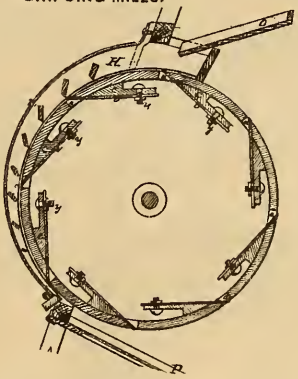
110,925, WILLIAM LOCHHEAD. BILLIARD-TABLES.



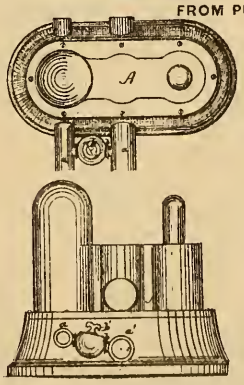
110,926 HENRY G. LUDLOW, 2D. SLIDING STOP-VALVES.



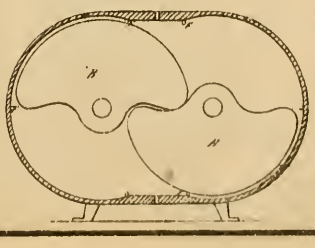
110,927, ISAAC MAYFIELD. W. D. MAYFIELD. GRINDING-MILLS.



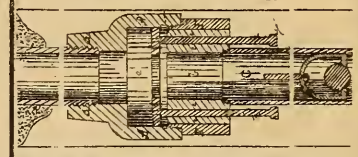
110,928. JOHN MAYHER. REGULATING THE DISCHARGE OF WATER FROM PUMPS.



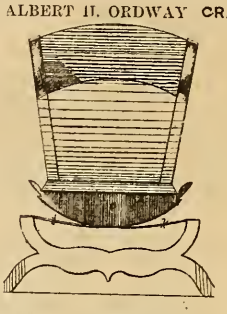
110,929 HENRY C. McILWAIN. ALONZO BRUMFIEL. ROTARY BLOWERS



110,930. HENRY MILLINGAR. VALVES FOR OIL-PUMPS.

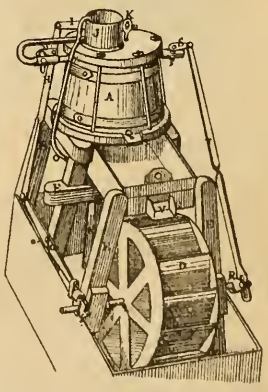


110,931. ALBERT H. ORDWAY CRADLES.

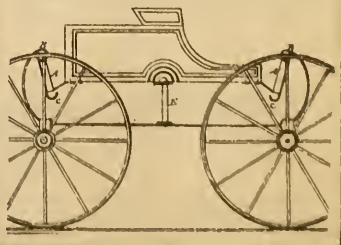


110,932. ALBERT PARLIMAN. NECK-YOKES OF HARNESS.

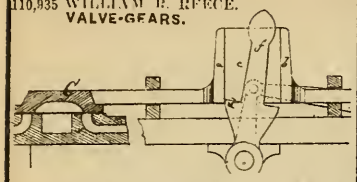
110,933. JAMES H. PATTEE. HUGH J. GRAHAM. STEAM VACUUM-PUMPS.



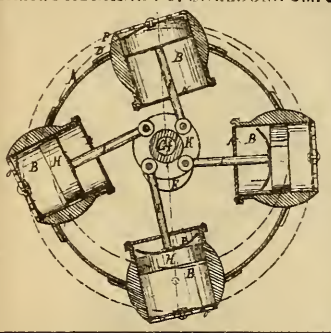
110,934. SAMUEL J. PEARSALL. SILAS T. BRIGGS. SPRINGS FOR WAGONS AND CARRIAGES



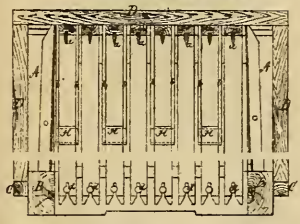
110,935 WILLIAM B. REECE.
VALVE-GEARS.



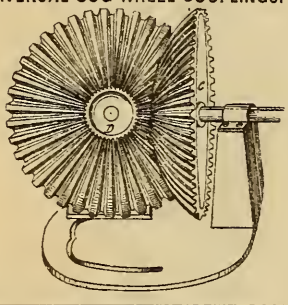
110,936. NATHANIEL P. SHELDON. PUMPS.



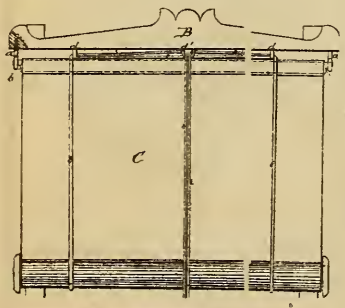
110,937. L. S. SISSON. BEE-HIVES.



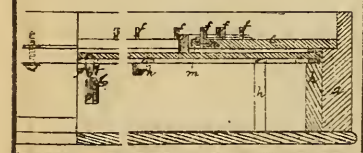
110,938. EGBERT SMITH.
UNIVERSAL COG-WHEEL COUPLINGS.



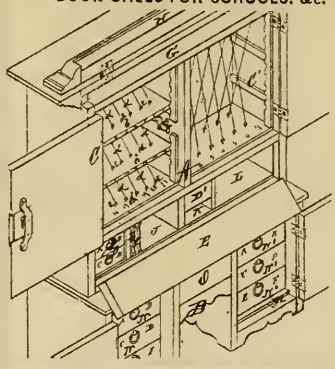
110,939. WILLIAM H. TAMBLING.
CURTAIN-FIXTURES.



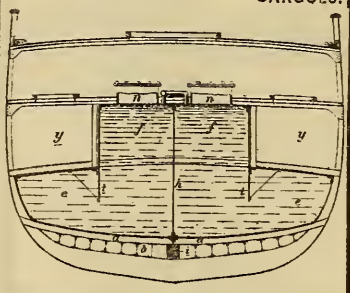
110,940, W. F. ULMAN. PIANOS.



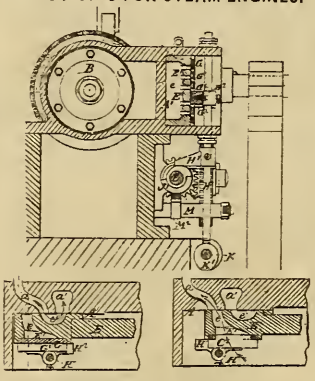
110,941, PETER T. VANNICE.
BOOK-CASES FOR SCHOOLS, &c.



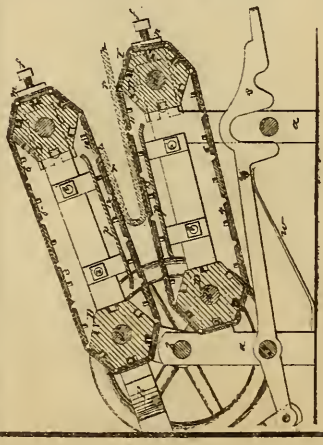
110,942, WILLIAM G. WARDEN.
VESSELS FOR CARRYING LIQUID CARGOES.



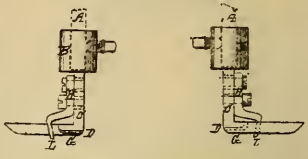
110,943. WILLIAM WATTS.
FREDERICK A. PHELPS.
CUT-OFFS FOR STEAM-ENGINES.



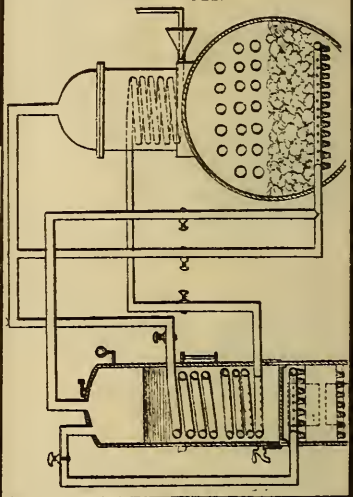
110,944 U. R. WILLIAMS.
WILLIAM P. MARTIN.
MACHINES FOR BOARDING LEATHER.



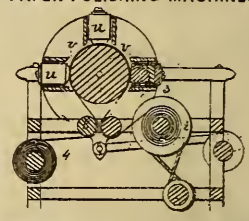
110,945. ALFRED S. WOODWARD.
PRESSERS AND STITCH-DIVIDERS FOR SEWING-MACHINES.



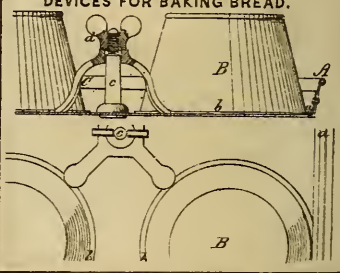
110,946. ALFRED J. WORKS.
HENRY A. DANIELS.
APPARATUS AND PROCESSES FOR GENERATING AND BURNING VAPOR FUEL.



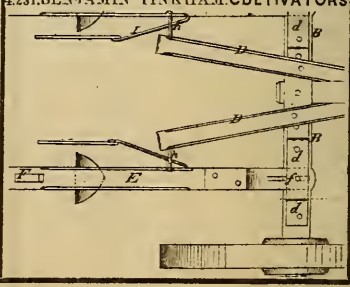
110,947. ABRAM WRIGHT.
GEORGE F. WRIGHT.
PAPER-POLISHING MACHINES.



4,230. ABRAM I. QUACKENBUSH.
GUILFORD HAWN.
DEVICES FOR BAKING BREAD.



4,231. BENJAMIN TINKHAM. CULTIVATORS



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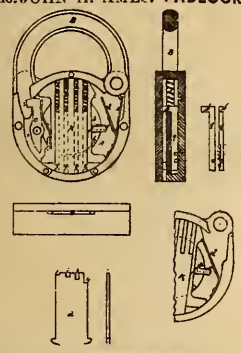
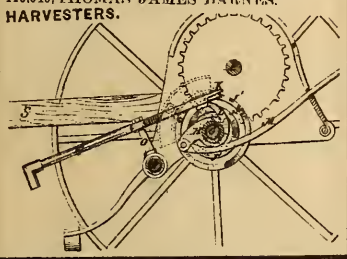
JAN. 17, 1871.

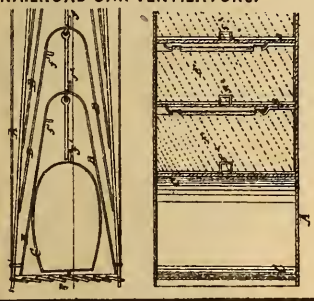
110,948. JOHN H. AMES. **PADLOCKS.**



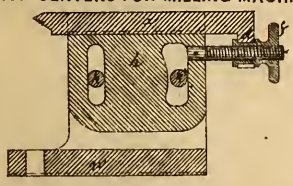
110,949, THOMAS JAMES BARNES. **HARVESTERS.**



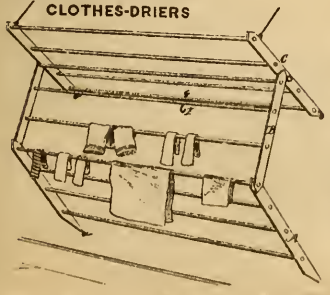
110,950. WILLIAM C. BETTS. **RAILROAD-CAR VENTILATORS.**



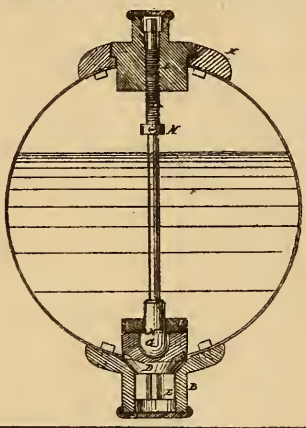
110,951, AMOS H. BRAINARD. **BACK CENTERS FOR MILLING-MACHINES.**



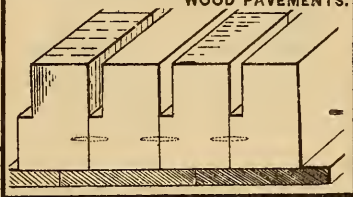
110,952, JOSEPH L. BRIGHAM. **CLOTHES-DRIERS**



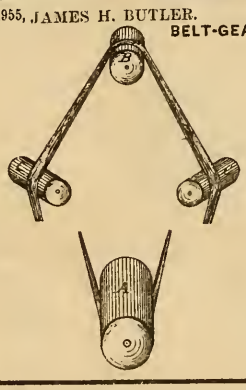
110,953, WILLIAM J. BRUNDRED. **DEVICES FOR DISCHARGING OIL FROM TANKS.**



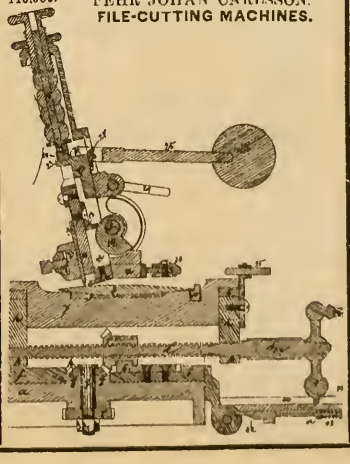
110,954. WILLIAM BUSHNELL. **WOOD PAVEMENTS.**



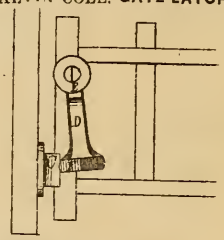
110,955, JAMES H. BUTLER. **BELT-GEARINGS.**



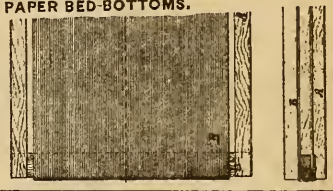
110,956. PEHR JOHAN CARLSSON. **FILE-CUTTING MACHINES.**



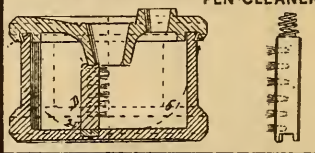
110,957, CALVIN COLE. **GATE-LATCHES.**



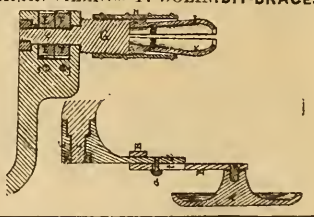
110,958, JAMES B. CRANE. **PAPER BED-BOTTOMS.**



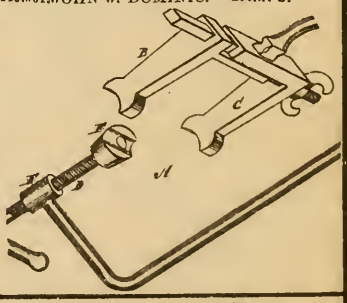
110,959, SAMUEL DARLING. **PEN-CLEANERS.**



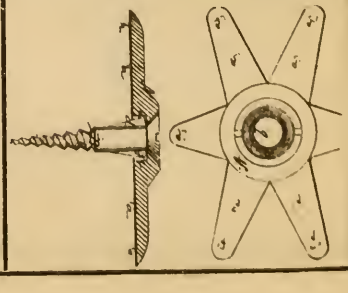
110,960. WILLIAM P. DOLIN. **BIT-BRACES.**



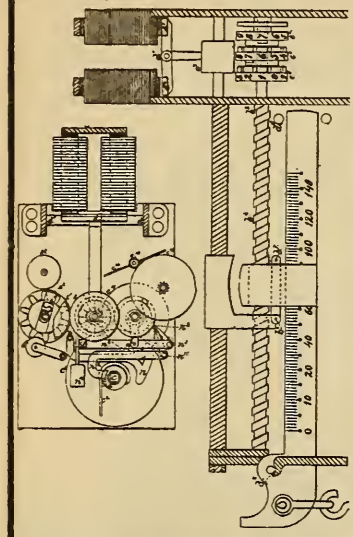
110,961. JOHN J. DOMINIC. **CLAMPS.**



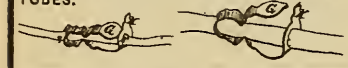
110,962, CHARLES C. EGERTON. **STAMP-CANCELERS.**



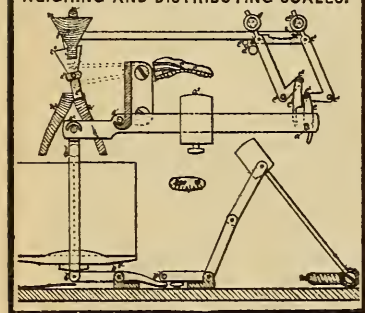
110,963. HENRY FAIRBANKS. ELECTRO-MAGNETIC WEIGHING-MACHINES.



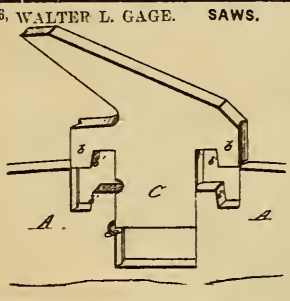
110,964. HENRY FAIRBANKS. COMPRESSION-COCKS FOR FLEXIBLE TUBES.



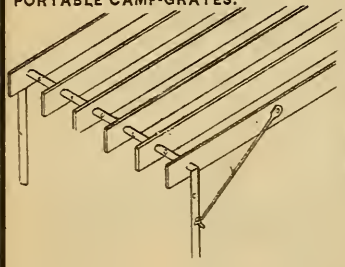
110,965. HENRY FAIRBANKS. AUTOMATIC WEIGHING AND DISTRIBUTING-SCALES.



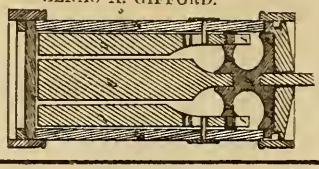
110,966. WALTER L. GAGE. SAWS.



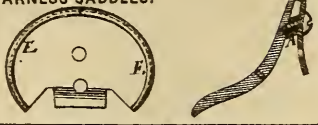
110,967. LORENZO D. GAVITT. PORTABLE CAMP-GRATES.



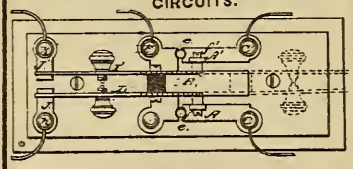
110,968. ALDEN GIFFORD. ZENAS A. GIFFORD. CHURNS.



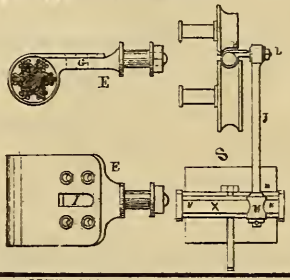
110,969. ALGERNON GILLIAM. HARNESS-SADDLES.



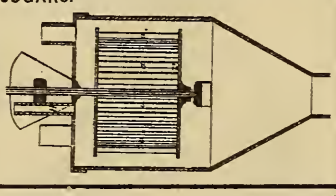
110,970. ELISHA GRAY. MECHANISMS FOR OPENING AND CLOSING TELEGRAPHIC STATION-CIRCUITS.



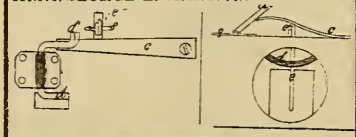
110,971. ANDREW SMITH HALLIDIE. ENDLESS-WIRE ROPE-WAYS.



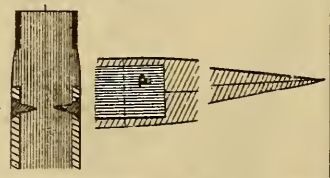
110,972. MELANCTHON HANFORD. MACHINES FOR MIXING AND BLEACHING SUGARS.



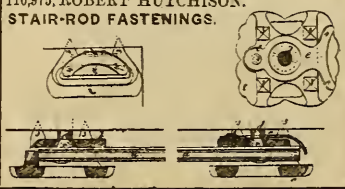
110,973. GEORGE L. HART. ANIMAL-TRAPS



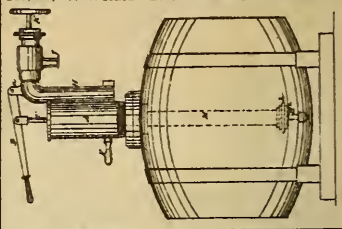
110,974. ALBERT HEUSSER. WEDGES FOR SPLITTING WOOD.



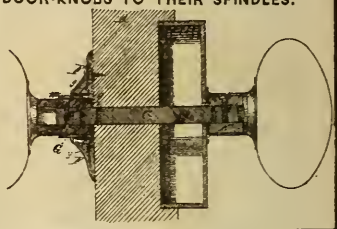
110,975. ROBERT HUTCHISON. STAIR-ROD FASTENINGS.



110,976. EDWARD T. JENKINS. PUMPS

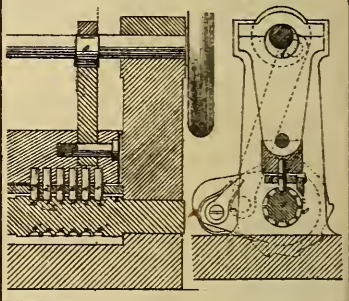


110,977. JAMES N. KARR. ATTACHING DOOR-KNOBS TO THEIR SPINDLES.



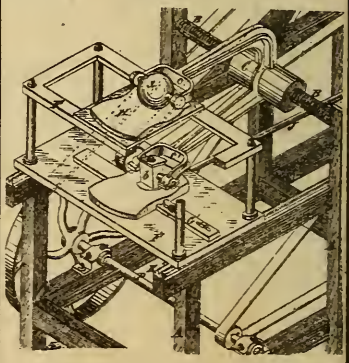
110,978. D. J. KELLOGG. FOUNTAIN PAINT-BRUSHES.

110,979. WM. R. LANDFEAR MANUFACTURE OF EYELET-BLANKS.

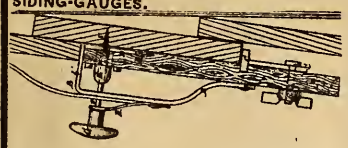


110,980. HAMILTON B. LAWTON. MODES OF FORMING BALLS OF TWINE AND CORD.

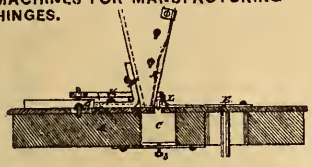
110,981. JOHN LEMMAN. MACHINES FOR MOLDING CHAIR-BOTTOMS.



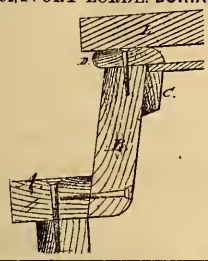
110,982 WILLIAM E. LEWIS.
SIDING-GAUGES.



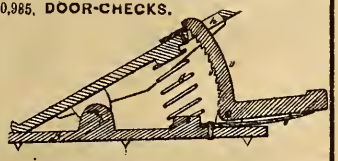
110,983. W. F. LEWIS.
MACHINES FOR MANUFACTURING HINGES.



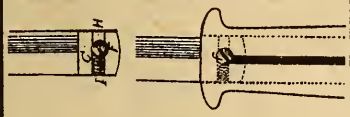
110,984, IVORY LORDE. BURIAL-CASES.



HORATIO NELSON HICKS LUGRIN.
110,985. DOOR-CHECKS.

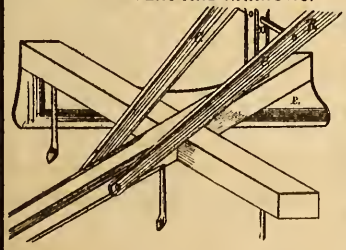


110,986. MYRON W. LYMAN. CUTLERY

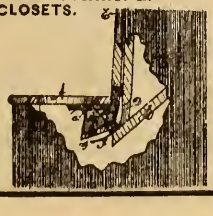


110,987, MYRON W. LYMAN.
FRANKLIN C. WYMAN.
SHOEMAKERS' TOOLS.

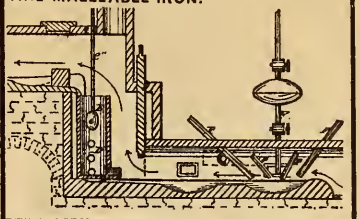
110,988, JOHN M. P. LYON.
COTTON-SCRAPERS AND HARROWS.



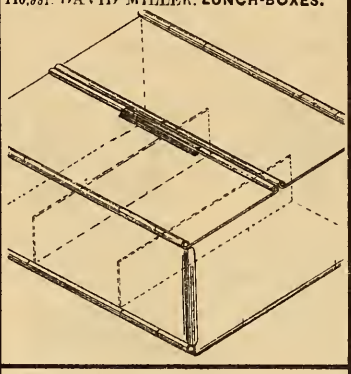
110,989. PATRICK MALONE.
EARTH-CLOSETS.



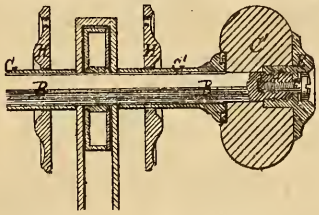
110,990. JOHN W. MIDDLETON.
PRODUCING REFINED CAST-IRON, STEEL AND MALLEABLE IRON.



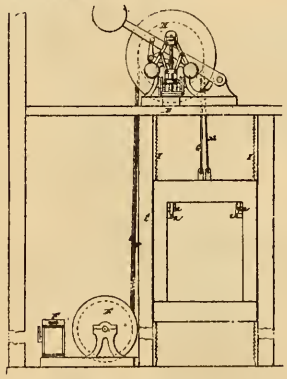
110,991. DAVID MILLER. LUNCH-BOXES.



110,992, CHAS. MORRILL.
ATTACHING KNOBS TO THEIR SPINDLES



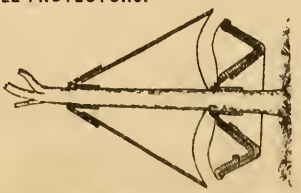
110,993, CHAS. R. OTIS.
NORTON P. OTIS.
HOISTING APPARATUS.



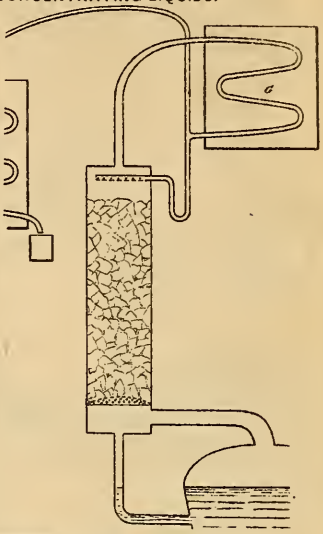
110,994, ALFRED PARAF.
MATERIAL CALLED "OLE-IZERINE," FOR DYEING AND PRINTING.

110,995, ALFRED PARAF.
PROCESSES OF EXTRACTING THE COLORING-MATTER OF MADDER.

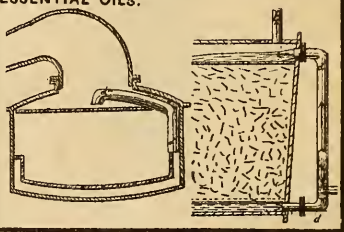
110,996, CAROLINE PARKS.
TREE-PROTECTORS.



110,997. C. CHAUNCY PARSONS.
APPARATUS FOR DISTILLING AND CONCENTRATING LIQUIDS.

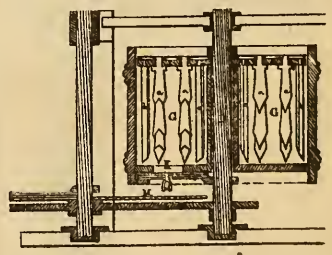


110,998. GEORGE GILMAN PERCIVAL.
APPARATUS FOR EXTRACTING ESSENTIAL OILS.

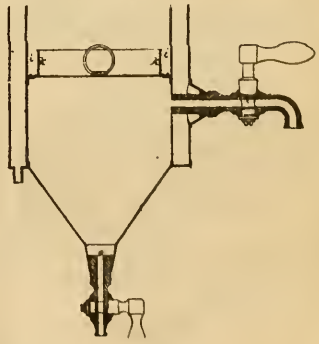


110,999. THOMAS POTTER.
OIL-PAINTS FOR COATING OIL-CLOTH.

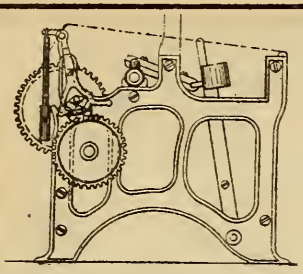
111,000, SILAS PUTNAM. THOS. BURT.
MACHINES FOR MIXING CONCRETE, &c.



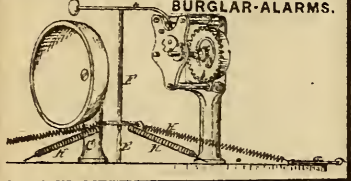
111,001, L. RAECKE. FILTERS.



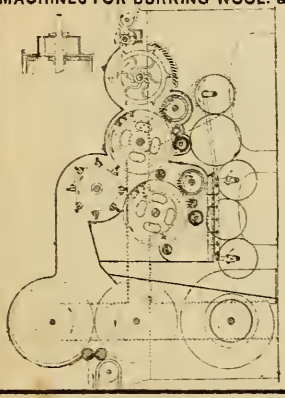
111,002. HORATIO A. REMINGTON.
LET-OFF MECHANISMS FOR LOOMS.



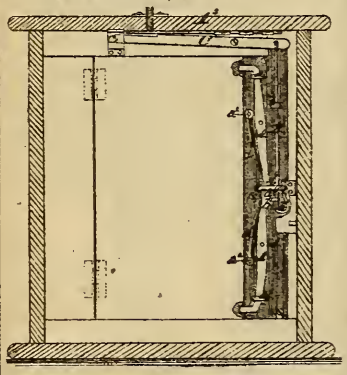
111,003. WILLIAM REYNOLDS.
BURGLAR-ALARMS.



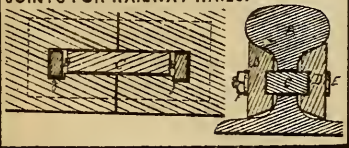
111,004 WILLIAM RICHARDSON.
MACHINES FOR BURRING WOOL. &c.



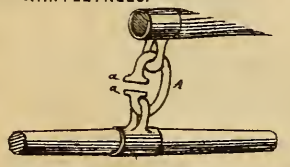
111,005 BENJAMIN F. ROBERTS.
LOCKS FOR DOORS, &c.



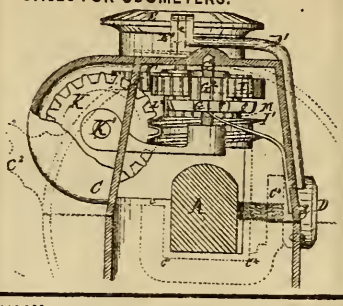
111,006, WILLIAM W. ROBINSON.
JOINTS FOR RAILWAY RAILS.



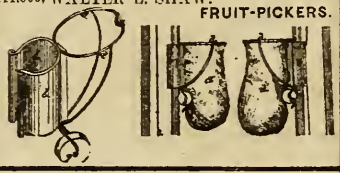
111,007. NEWTON C. SAMPLE.
OPEN LINKS FOR COUPLING DOUBLE- AND WHIFFLETREES.



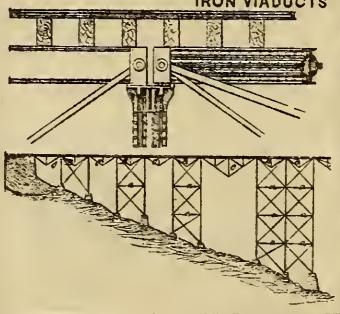
111,008 JACOB D. SEIPEL.
CYRUS B. ALSOVER.
CASES FOR ODOMETERS.



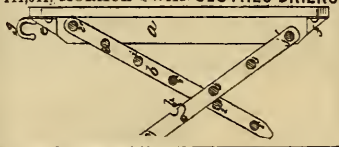
111,009, WALTER L. SHAW.
FRUIT-PICKERS.



111,010, C. SHALER SMITH.
IRON VIADUCTS

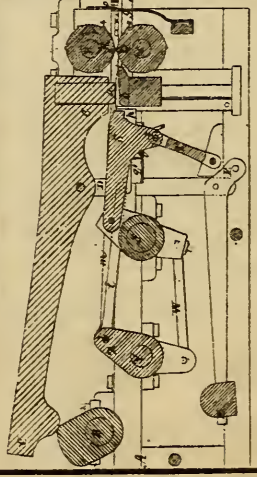


111,011, HORACE SWAN CLOTHES-DRIERS.

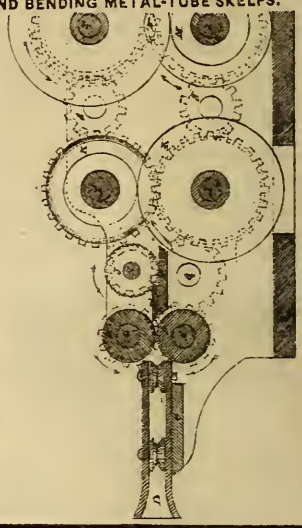


111,012. CHARLES L. SWEATT,
GEORGE A. HUNTOON.
CUSTARD AND CAKE-BAKERS.

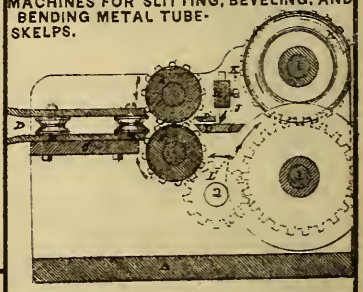
111,013. JAMES H. SWETT.
MACHINES FOR MAKING SPIKES.



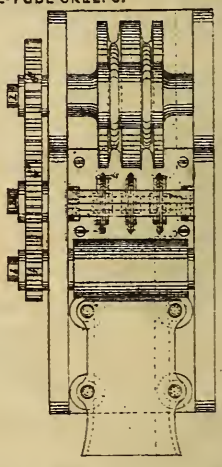
111,014 STEPHEN P. M. TASKER.
MACHINES FOR SLITTING, BEVELING, AND BENDING METAL-TUBE SKELPS.



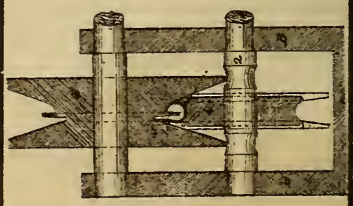
111,015, STEPHEN P. M. TASKER.
MACHINES FOR SLITTING, BEVELING, AND BENDING METAL TUBE-SKELPS.



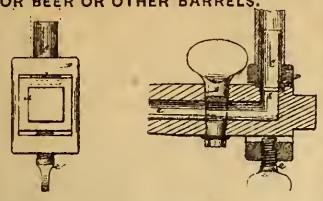
111,016, STEPHEN P. M. TASKER.
MACHINES FOR SLITTING AND BENDING METAL-TUBE SKELPS.



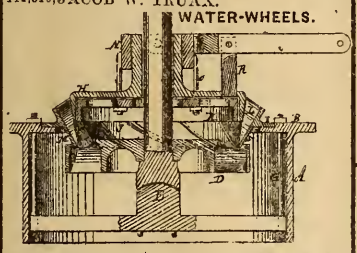
111,017. STEPHEN P. M. TASKER.
MACHINE FOR BENDING METAL TUBE-SKELPS.



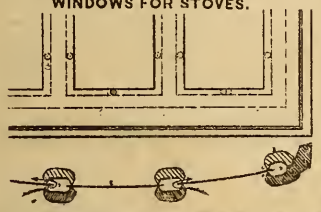
111,018. SAMUEL THOMPSON. FAUCETS FOR BEER OR OTHER BARRELS.



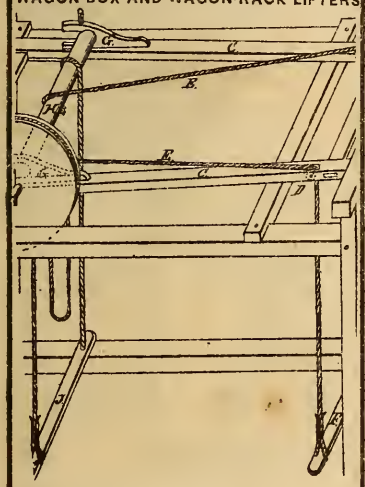
111,019. JACOB W. TRUAX. WATER-WHEELS.



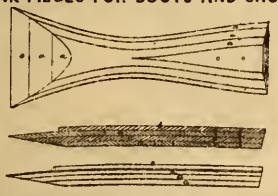
111,020. H. B. VAN BENTHUYSEN. WINDOWS FOR STOVES.



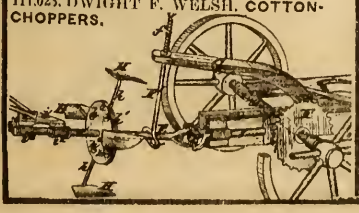
111,021. IZAAK VAN KERSEN. WAGON-BOX AND WAGON-RACK LIFTERS



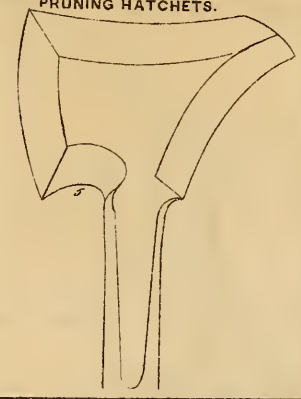
111,022. JEREMIAH M. WATSON. SHANK-PIECES FOR BOOTS AND SHOES.



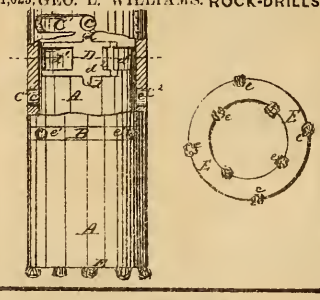
111,023. DWIGHT F. WELSH. COTTON-CHOPPERS.



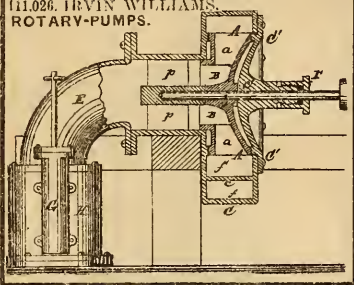
111,024. JERISON WHITE. PRUNING HATCHETS.



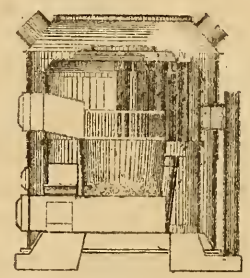
111,025. GEO. L. WILLIAMS. ROCK-DRILLS.



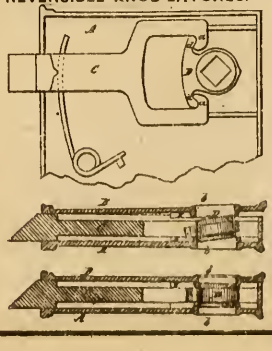
111,026. IRVIN WILLIAMS. ROTARY-PUMPS.



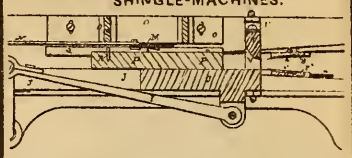
111,027. CHARLES ALLEN. HOT-AIR FURNACES.



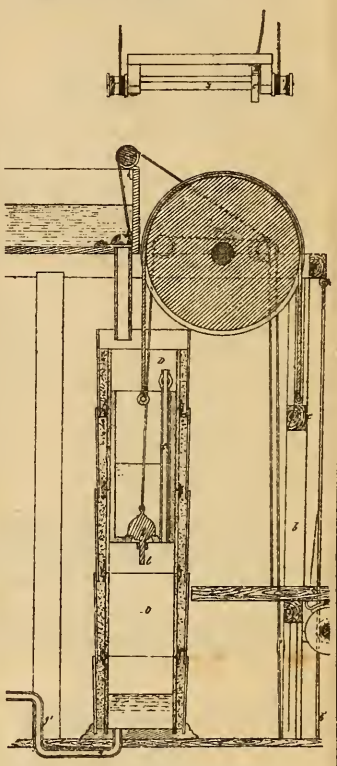
111,028. WM. H. ANDREWS. REVERSIBLE KNOB-LATCHES.



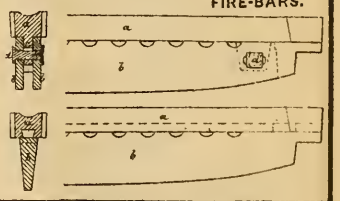
111,029. HOLIDAY C. BABCOCK. SHINGLE-MACHINES.



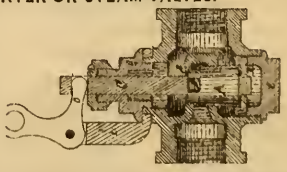
111,030. CYRUS W. BALDWIN. HYDRO-ATMOSPHERIC ELEVATORS.



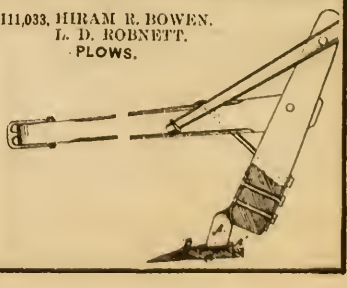
111,031. WILLIAM BATCHELOR. FIRE-BARS.



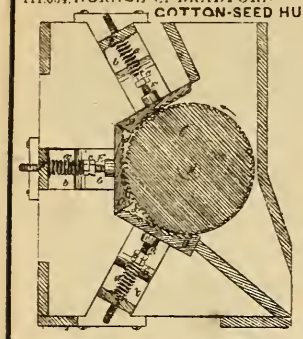
111,032. ROBERT BERRYMAN. WATER OR STEAM-VALVES.



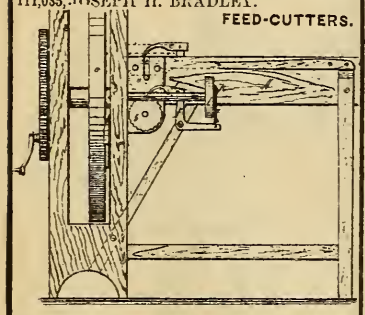
111,033. HIRAM R. BOWEN. L. D. ROBNETT. PLOWS.



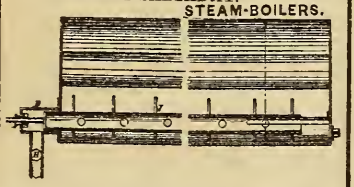
111,034. HORACE C. BRADFORD. COTTON-SEED HULLERS.



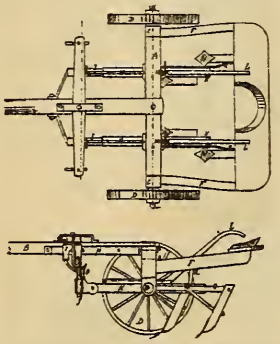
111,035. JOSEPH H. BRADLEY. FEED-CUTTERS.



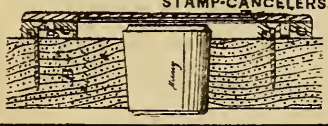
111,036. ADOLPH BRASE. LEMUEL SALLADAY. STEAM-BOILERS.



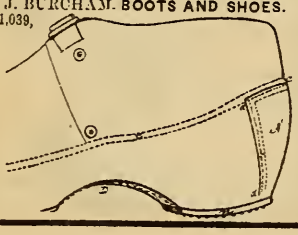
111,037. GEORGE WALTER BRONSON. CULTIVATORS.



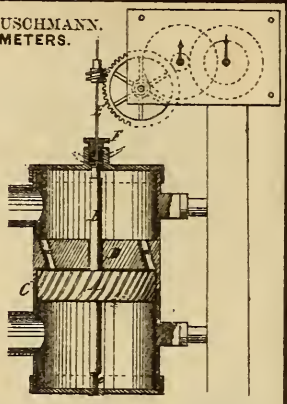
111,038. FRANKLIN W. BROOKS. STAMP-CANCELERS.



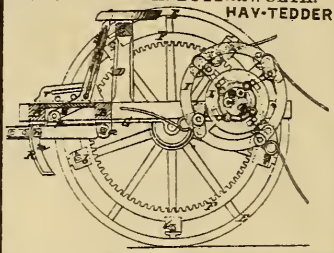
F. J. BURCHAM. BOOTS AND SHOES. 111,039.



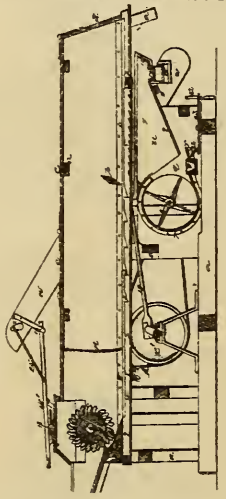
111,040. L. F. BUSCHMANN. FLUID-METERS.



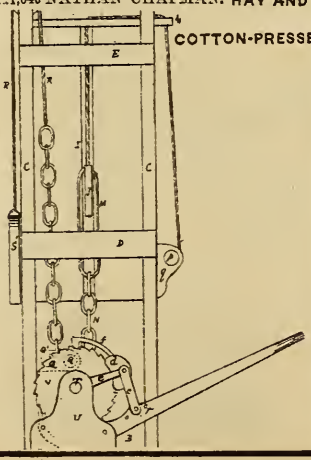
111,041. WILLIAM H. BUTTERWORTH. HAY-TEDDERS.



111,042. HENRY RUSSELL CANINE. THRASHING-MACHINES.



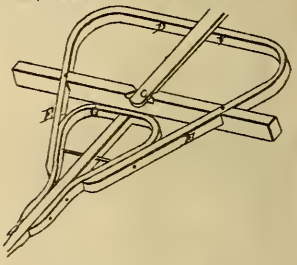
111,043 NATHAN CHAPMAN. HAY AND COTTON-PRESSES.



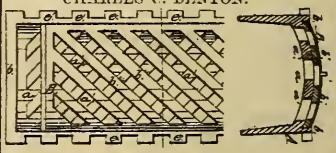
111,044. WILLIAM E. CHILSON. MEDICAL COMPOUND PILLS FOR CURE OF COLDS, &c.

111,045. B. H. DETWILER. S. G. VAN GILDER. PRESERVING WOODS.

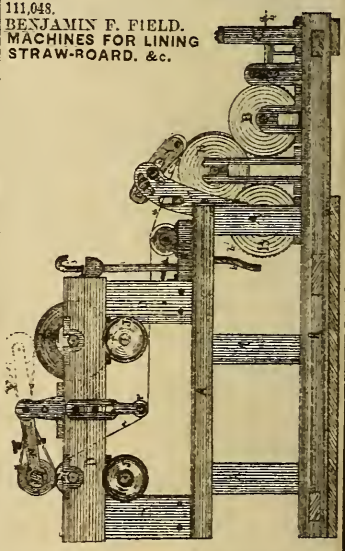
111,046. GERARD DOAN. THEODORE WALLIS. GEORGE D. MORELAND. HOUNDS, SWAY-BARS, TONGUE-BRACES, AND CROSS-BARS OF VEHICLES.



111,047. ALBERT FICKETT. GRATE-BARS. CHARLES C. BENTON.

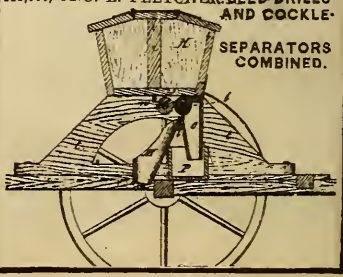


111,048. BENJAMIN F. FIELD. MACHINES FOR LINING STRAW-BOARD, &c.

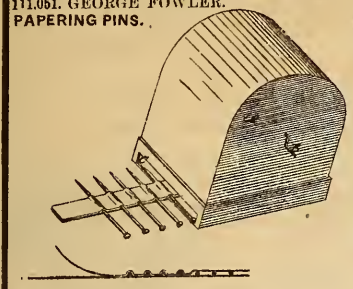


111,049. LEVI W. FIFIELD. SHIRT-BUTTONS OR STUDS.

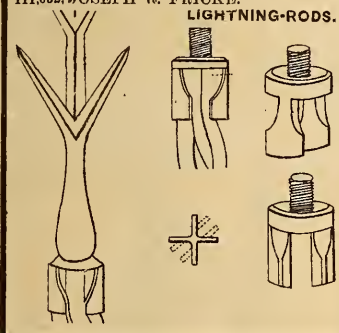
111,050. JNO. E. FLETCHER. SEED-DRILLS AND COCKLE-SEPARATORS COMBINED.



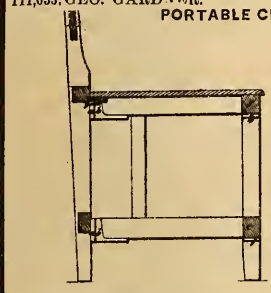
111,051. GEORGE FOWLER.
PAPERING PINS.



111,052. JOSEPH R. FRICKE.
LIGHTNING-RODS.

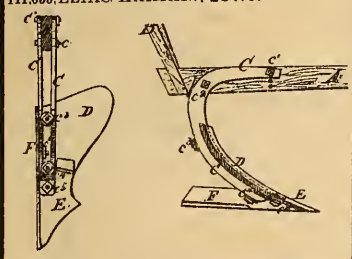


111,053. GEO. GARDNER.
PORTABLE CHAIRS.

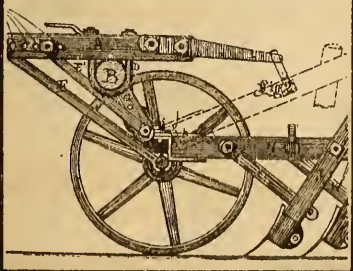


111,054. ALFRED M. GEORGE.
FIRE-TONGS.

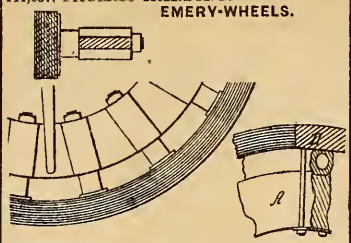
111,055. ELIAS HAIMAN. PLOWS.



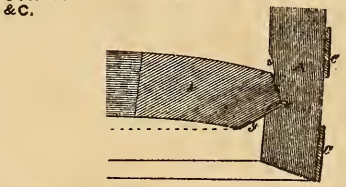
111,056, THOMAS HARDING. PLOWS.



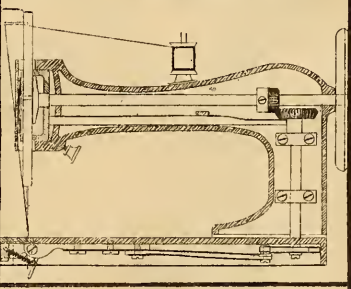
111,057, THOMAS HARDING.
EMERY-WHEELS.



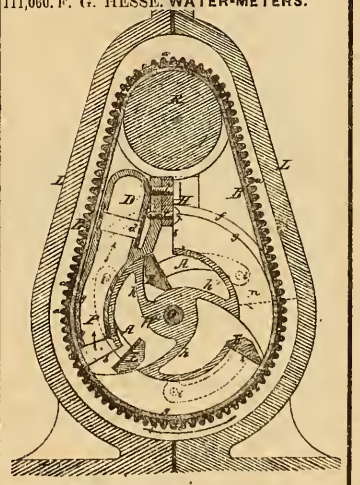
111,058, MATTHEW HAWE.
CONSTRUCTION OF BARRELS FOR BEER, &C.



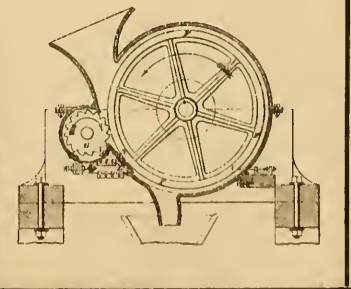
111,059. ARTHUR HELWIG.
SEWING-MACHINES.



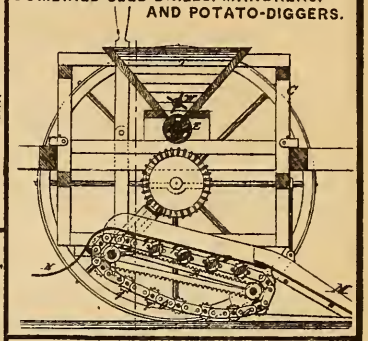
111,060. F. G. HESSE. WATER-METERS.



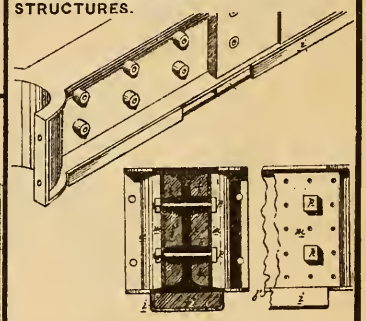
111,061, GEORGE O. HOHENSTEIN.
C. T. GLAESER. CRUSHING AND HULLING ATTACHMENTS TO GRINDING-MILLS.



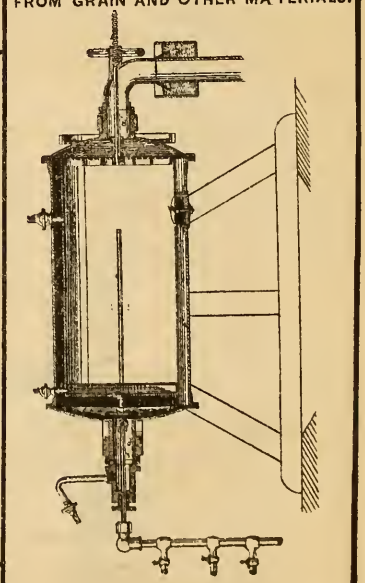
111,062, EUGENE C. HOPPING.
EUGENE A. ELY.
COMBINED SEED-DRILLS, MANURERS, AND POTATO-DIGGERS.



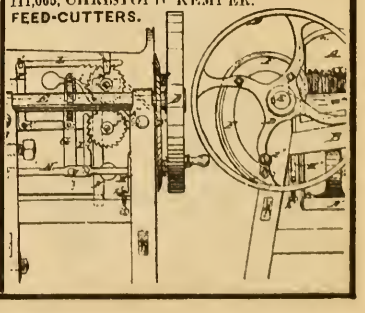
111,063. W. W. HUGHES.
BEAMS OR GIRDERS FOR FIRE-PROOF STRUCTURES.



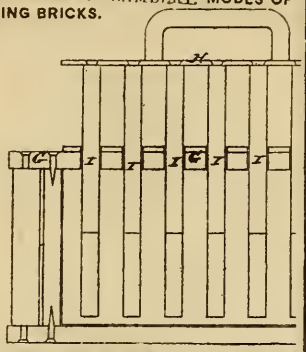
111,064. ELIAS S. HUTCHINSON.
APPARATUS FOR SEPARATING OIL FROM GRAIN AND OTHER MATERIALS.



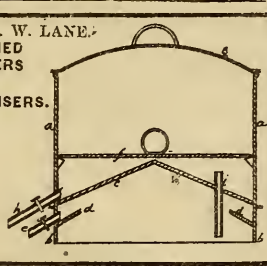
111,065, CHRISTOPH KEMPER.
FEED-CUTTERS.



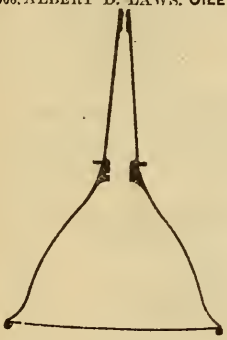
111,066 FRANCOIS LAMBERT. MODES OF MAKING BRICKS.



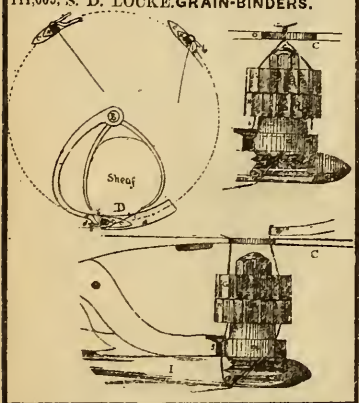
111,067. G. W. LANE. COMBINED STEAMERS AND CONDENSERS.



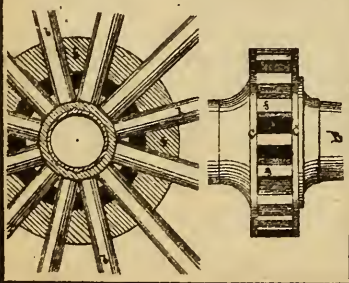
111,068. ALBERT D. LAWS. OILERS.



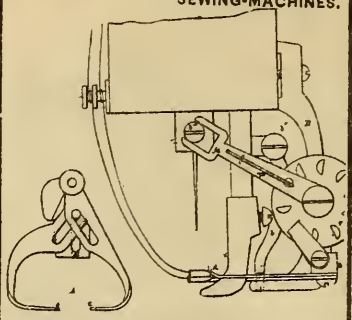
111,069. S. D. LOCKE. GRAIN-BINDERS.



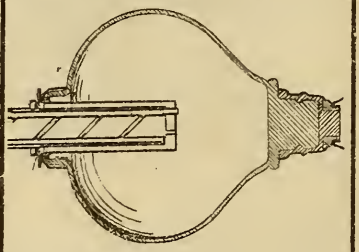
111,070 WM. I. LYMAN. HUBS FOR VEHICLES.



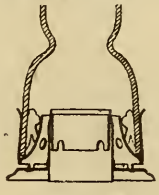
111,071. WILLIAM A. MACK. EMBROIDERING ATTACHMENTS FOR SEWING-MACHINES.



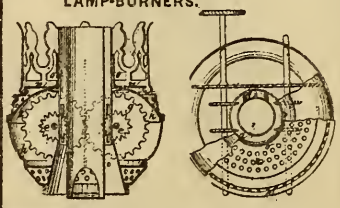
111,072. RUFUS S. MERRILL. LAMPS.



111,073, RUFUS S. MERRILL. LAMP-CHIMNEYS.

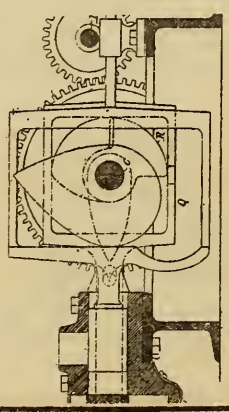


111,074, RUFUS S. MERRILL. LAMP-BURNERS.

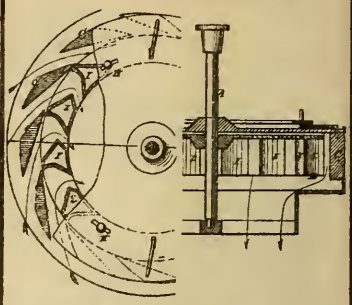


111,075. L. OTTO P. MEYER. MANUFACTURE OF SAFETY-MATCHES.

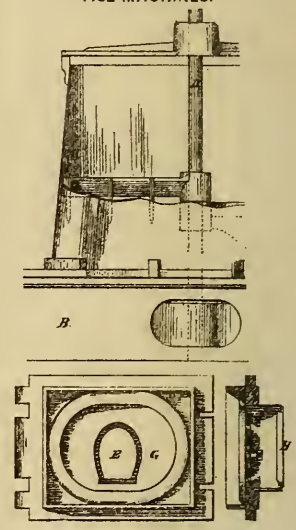
111,076, JAMES ALLAIRE MILLHOLLAND. BRICK-PRESSES.



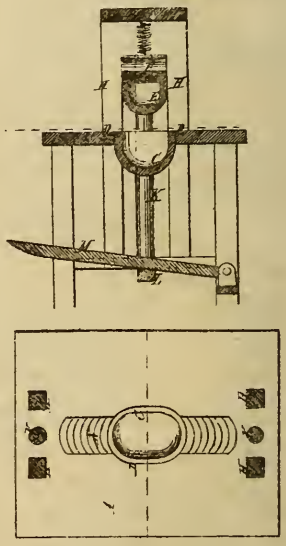
111,077, ALBERT L. MOORE. NORMAN S. PARKER. WATER-WHEELS.



111,078. ALBERT MOORHOUSE. TILE-MACHINES.

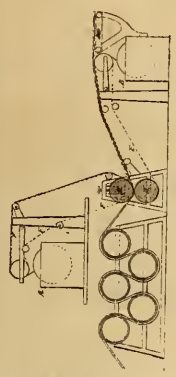


111,079. CHARLES M. OSGOOD. HAT-MACHINES.

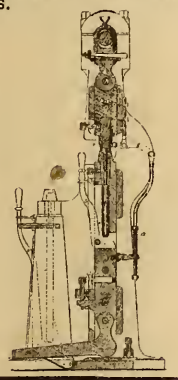


111,080, S. R. OWEN. WINDOW-FRAMES.

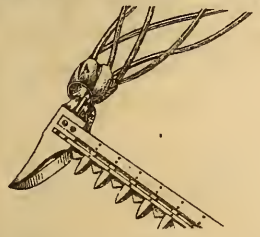
111,081. CLAUDIUS A. PEASE.
MACHINES FOR THE MANUFACTURE OF PAPER CARPET-LINING.



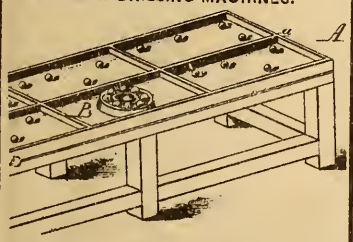
111,082, G. R. POSTLETHWAITE.
MACHINES FOR MAKING BOLTS AND NUTS.



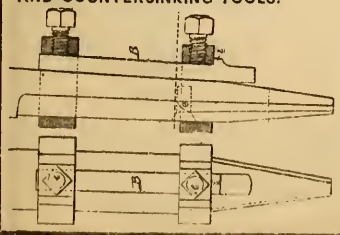
111,083. BENJAMIN F. POWER. TRACK-CLEARERS FOR MOWING-MACHINES.



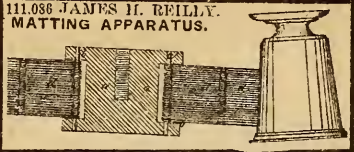
111,084 THOS. REANEY.
TABLES FOR DRILLING-MACHINES.



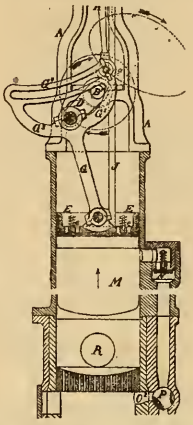
111,085. THOS. REANEY. REAMING AND COUNTERSINKING-TOOLS.



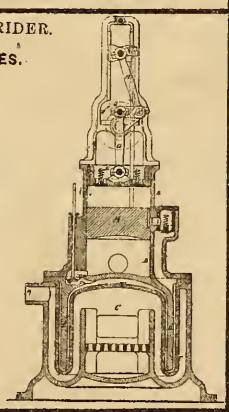
111,086 JAMES H. REILLY.
MATTING APPARATUS.



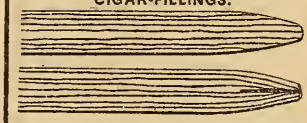
111,087, A. K. RIDER. HOT-AIR ENGINES.



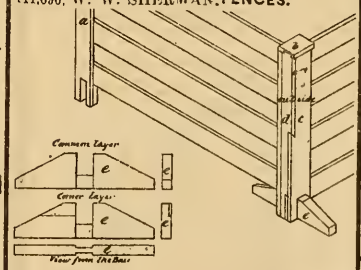
111,088, A. K. RIDER.
AIR-ENGINES.



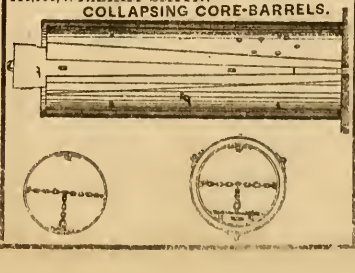
111,089. SOCRATES SCHOLFIELD.
CIGAR-FILLINGS.



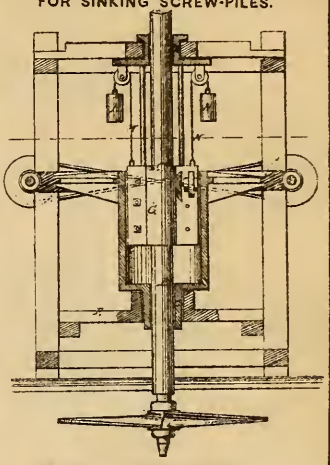
111,090, W. W. SHERMAN. FENCES.



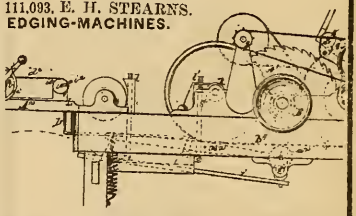
111,091, WILLIAM SMITH.
COLLAPSING CORE-BARRELS.



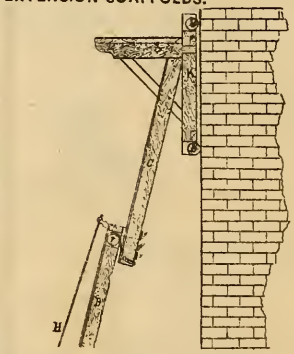
111,092. WM. SOOY SMITH. WM. REUSCHEL.
MACHINES FOR SINKING SCREW-PILES.



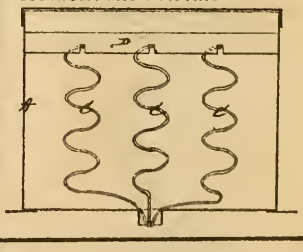
111,093. E. H. STEARNS.
EDGING-MACHINES.



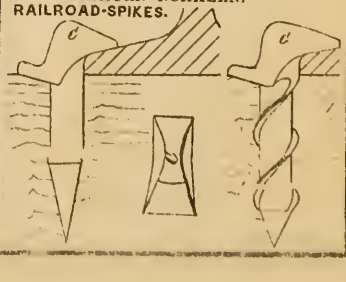
111,094, ASEL SWEET.
EXTENSION-SCAFFOLDS.



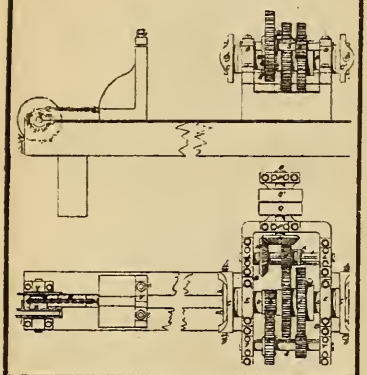
111,095. HENRY THURLOW.
LUBRICATORS FOR AXLES.



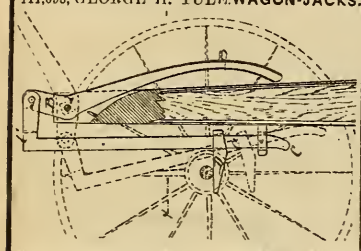
111,096. HENRY TORSTRICK.
REINHOLD BOEKLEN.
RAILROAD-SPIKES.



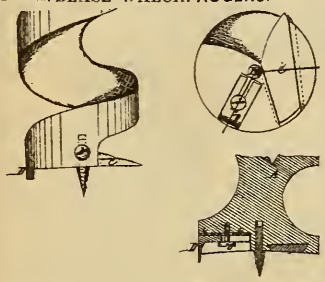
111,097. STEPHEN TUDDENHAM.
MANUFACTURE OF ORNAMENTAL BARS OR RODS OF METAL.



111,098, GEORGE H. TULE. WAGON-JACKS.



111,099. BLASE WALCH. AUGERS.



111,100. FRED. WALTON.
MANUFACTURE OF ARTIFICIAL LEATHER.

111,101, A. QUARLES WITHERS.
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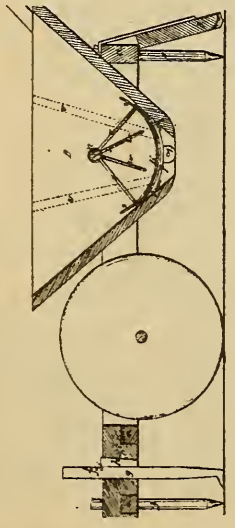
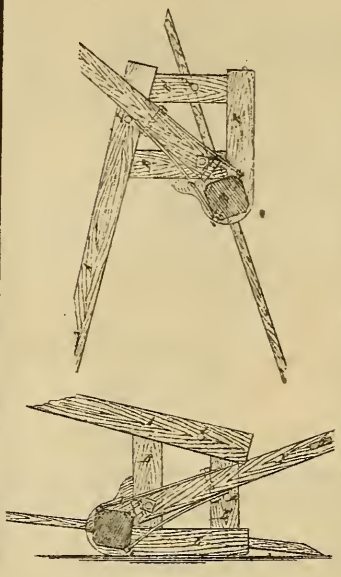
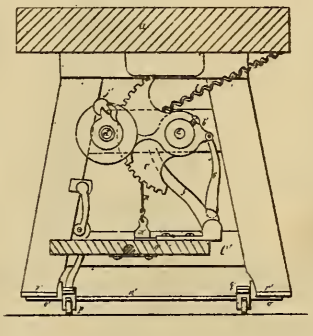


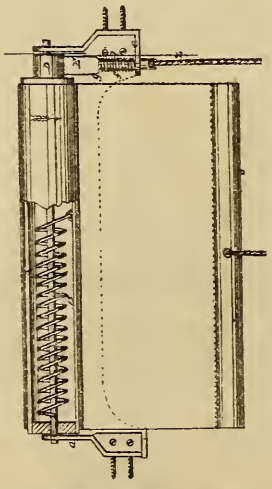
4,232, NEWCOMB M. BARNES.
HORSE HAY-RAKES.

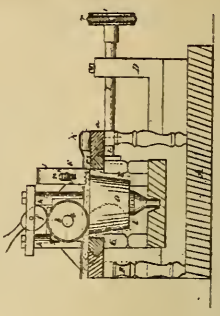


4,233, JOHN A. BRADSHAW.
WM. H. BROWN.
DARIUS WHITHED.
TREADLES FOR SEWING-MACHINES.

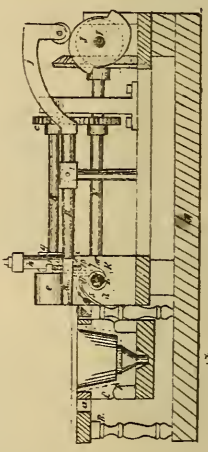


4,234, WM. CAMPBELL.
CURTAIN OR SHADE-FIXTURES.

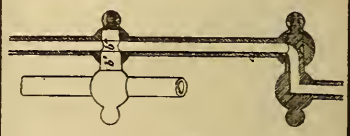


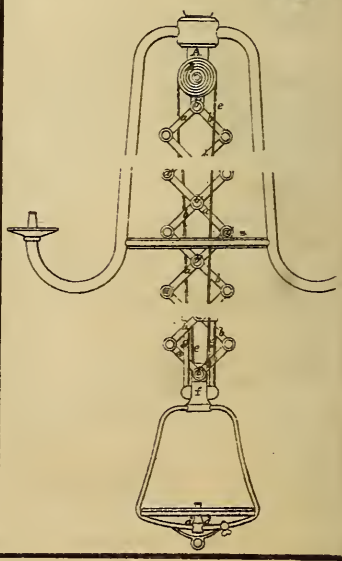


4,235, WM. A. FENN.
MACHINES FOR FORMING THE BRIMS OF FELT-HATS.



4,236, SAML. B. H. VANCE.
APPARATUS FOR SUSPENDING GASOLIERS AND DROP-LIGHTS.





ILLUSTRATIONS OF PATENTS

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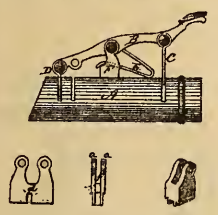
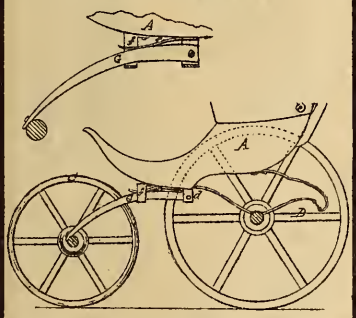
JAN. 24, 1871.

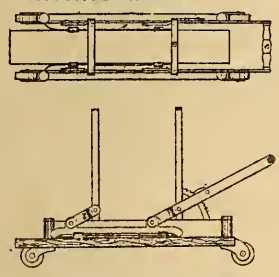
111,102. TOM. W. ALLEN.
CHARGERS FOR SHOT-POUCHES.



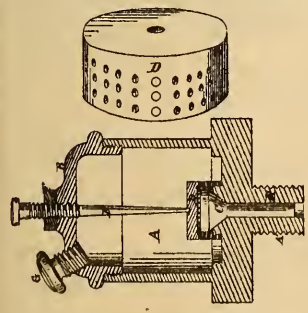
111,103. RODNEY G. BRITTON.
CHILDREN'S CARRIAGES.



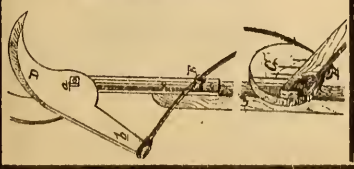
111,104, WILLIAM HAMMOND BROWN.
BAGGAGE-TRUCKS.



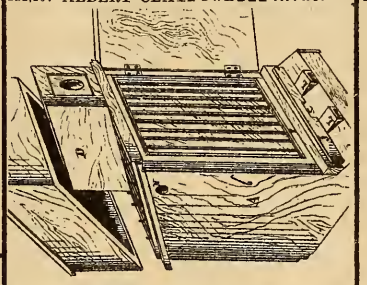
111,105, JAMES A. BRYAN.
WILLIAM STAINFIELD.
AUTOMATIC LUBRICATING-CUPS.



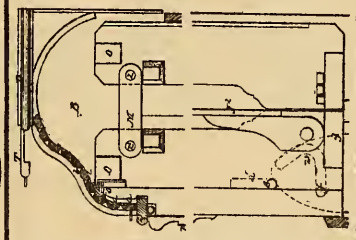
111,106, JOHN CALDER.
PRUNING-SHEARS.



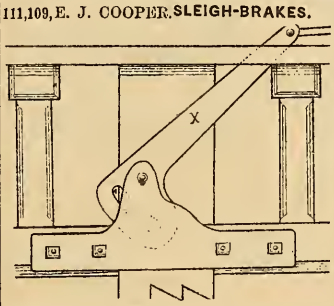
111,107 ALBERT CLAYPOOL BEE-HIVES.



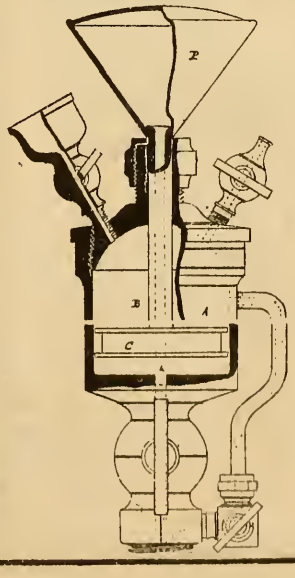
111,108. FRANCIS E. COFFIN.
PARLOR-BEDSTEADS.



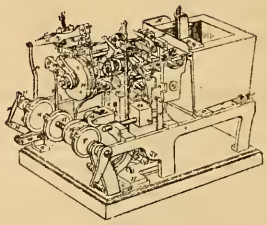
111,109, E. J. COOPER. SLEIGH-BRAKES.



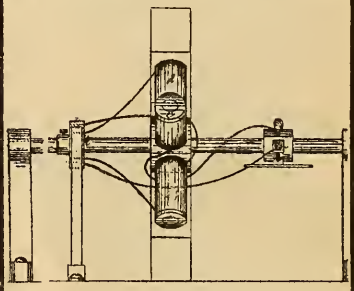
111,110. DANIEL GURRIE.
STEAM-LUBRICATORS.



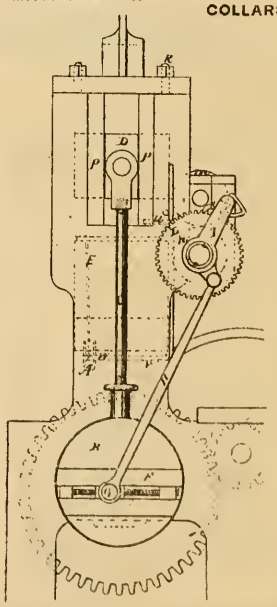
111,111, W. W. DUNN.
TYPE-CASTING MACHINES.



111,112, THOMAS A. EDISON.
GOVERNORS FOR ELECTRO-MOTORS.

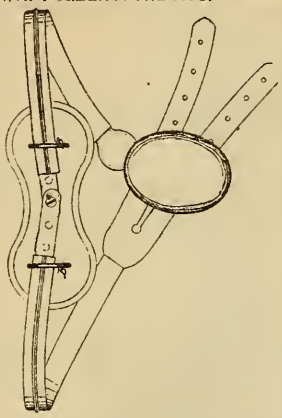


111,113, ALFRED L. ELLIOT.
MACHINES FOR CUTTING PAPER COLLARS.

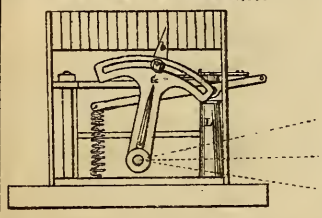


111,114, JOHN FARREL.
FLUX FOR WELDING STEEL OF HIGH AND LOW GRADES.

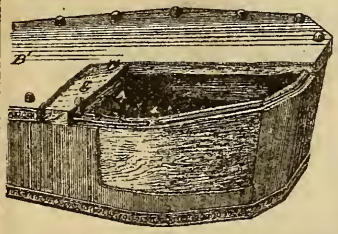
111,115, A. FOLLEAU. TRUSSES.



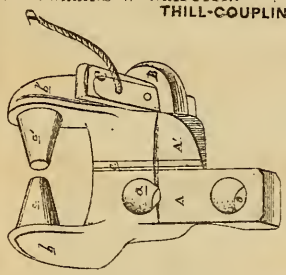
111,116, LUCUS FOOTE.
STEAM-BOILER FEEDERS.



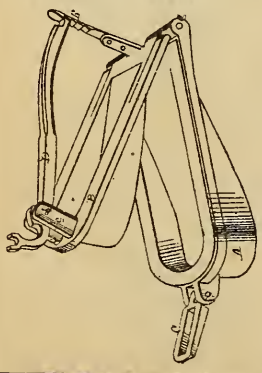
111,117, PATRICK H. GRIFFIN.
BURIAL-CASES.



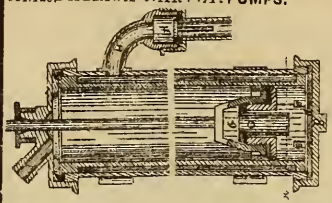
111,118. COLLINS W. GRIFFITH.
THILL-COUPLINGS.



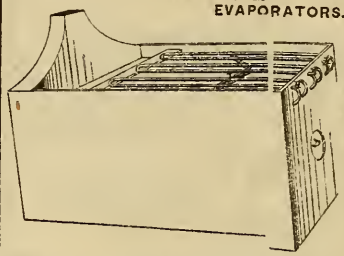
111,119, EDWIN W. HARLOW.
BACK-PAD PRESSES.



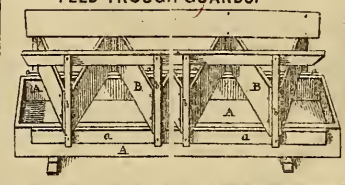
111,120, PATRICK HARVEY. PUMPS.



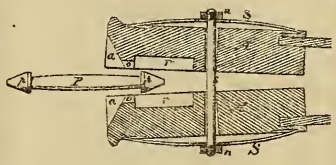
111,121, RICHARD HAWLEY, JR.
EVAPORATORS.



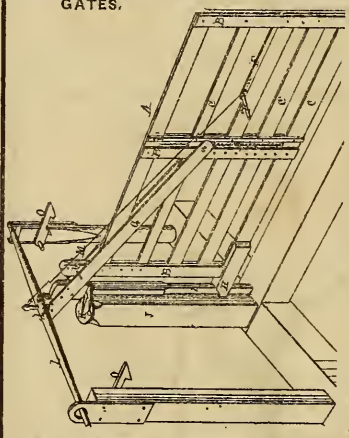
111,122, EDWIN HOVENDEN.
FEED-TROUGH GUARDS.



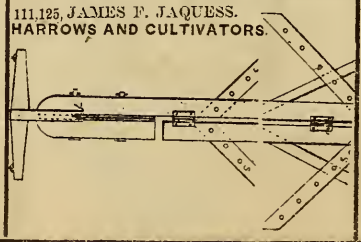
111,123, LEWIS HUDDLE,
JACOB K. HUDDLE.
RAILWAY-CAR COUPLINGS.



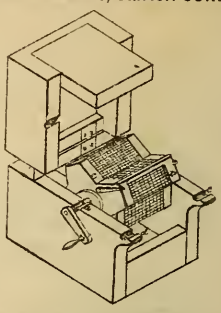
111,124, ROBERT HENRY HUDGIN.
GATES.



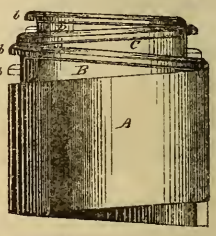
111,125, JAMES F. JAQUESS.
HARROWS AND CULTIVATORS.



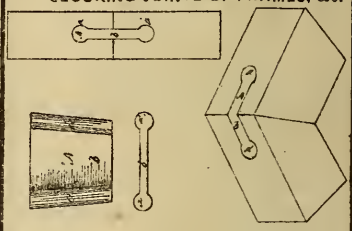
111,126, E. C. JENKINS, JR. ASH-SCREENS.



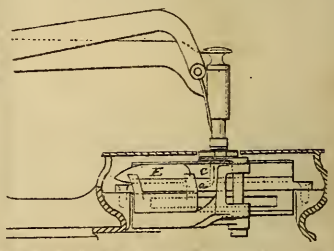
111,127, JAMES LELAND. CAR-SPRINGS.



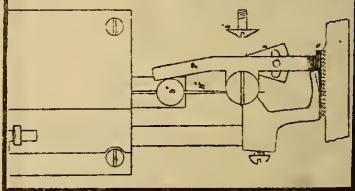
111,128, CHARLES F. LINSCOTT.
SECURING JOINTS OF FRAMES, &c.



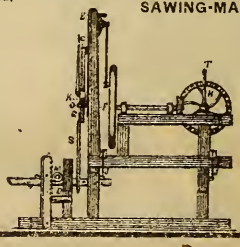
111,129, T. A. MACAULAY
SEWING-MACHINES.



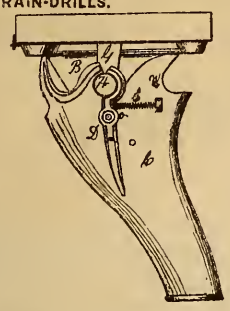
111,130, WILLIAM A. MACK
GATHERING ATTACHMENTS FOR SEWING-MACHINES.



111,131, JAMES D. MATTHEWS.
SAWING-MACHINES.

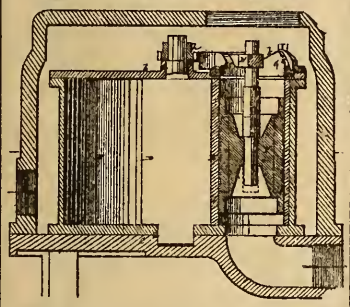


111,132. DANIEL E. McSHERRY.
GRAIN-DRILLS.

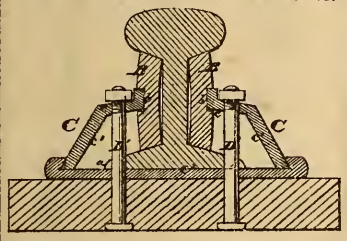


111,133. EDWARD MILNER.
COMPOUNDS FOR PRESERVING DRAIN-TILES, BRICKS, &c.

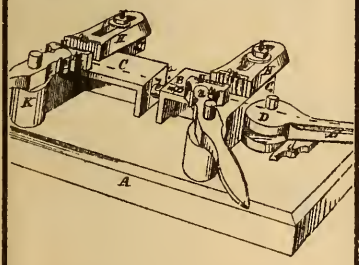
111,134. CHARLES MOORE. METERS.



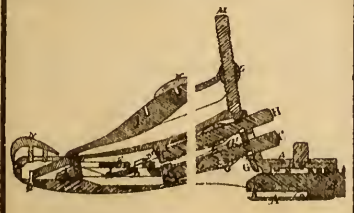
111,135. WILLIAM MOREHOUSE.
CHAIR-CLAMPS FOR RAILWAY-RAILS.



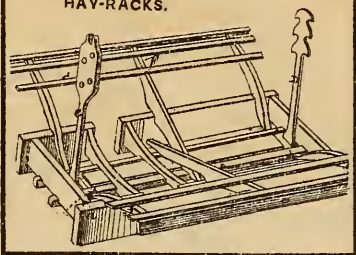
111,136. MARTIN L. MUNGER.
CORODON D. W. GIBSON.
MACHINES FOR UPSETTING IRON.



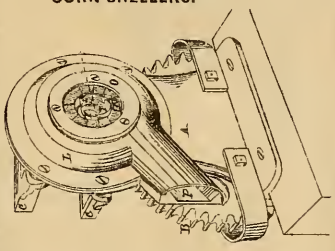
111,137. ISAAC W. MYERS.
BOOT-STRETCHERS.



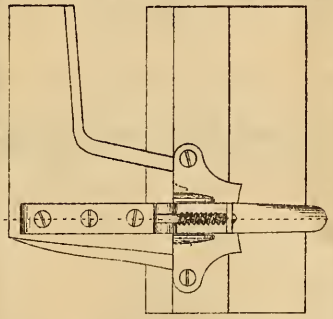
111,138 FRANZ LOUIS NAGLER.
HAY-RACKS.



111,139. FRANKLIN NELSON.
CORN-SHELLERS.



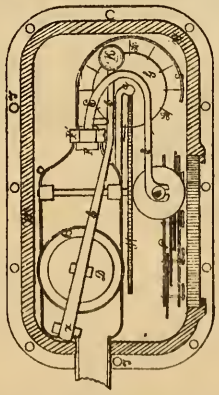
111,140. HENRY J. NORTHRUP.
CLAMPS FOR CARRIAGE-SEATS.



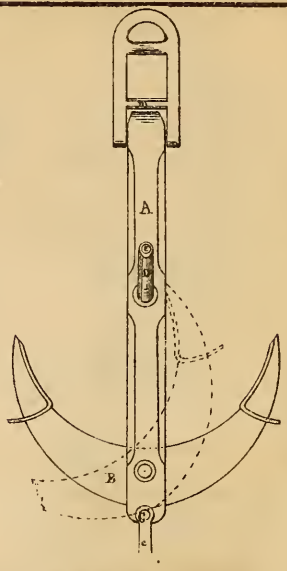
111,141. G. H. NUSSEY.
W. B. LEACHMAN.
MACHINES FOR PRESSING FABRICS.

111,142. ALFRED PARAF.
OBTAINING MADDER EXTRACTS.

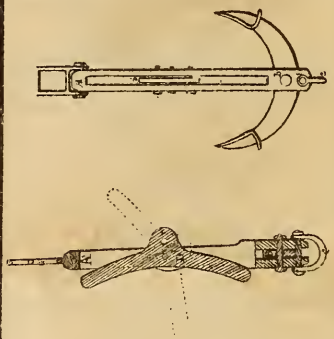
111,143. WEBSTER PARK. WATER-METERS.



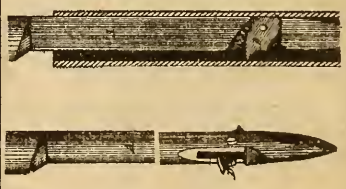
111,144. G. C. PATTISON.
ANCHORS.



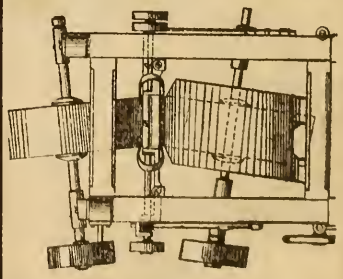
111,145. G. C. PATTISON. ANCHORS.



111,146. ISAAC S. PETERS.
TUBE-EXTRACTORS.

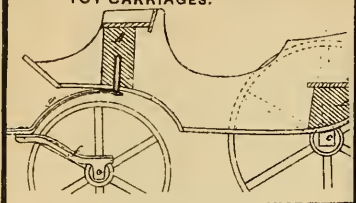


111,147. EDW. S. PIPER.
MACHINES FOR GRINDING HAND-SAWS.

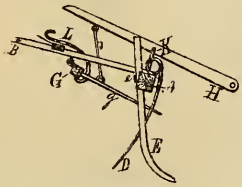


111,148. ANT. PIEZ.
COMPOSITIONS FOR COATING WOODEN STRUCTURES TO PROTECT THEM AGAINST FIRE.

111,149, FREDERICK W. PORTER.
TOY CARRIAGES.

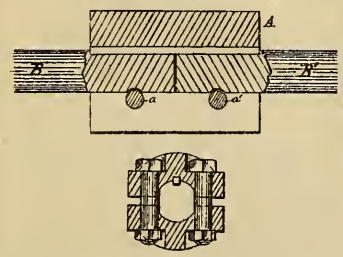


111,150, SAMUEL ROCKAFELLOW.
HORSE HAY-RAKES.

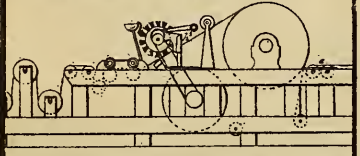


111,151, SAML. R. SCHARF.
ASPHALTIC PAVEMENTS.

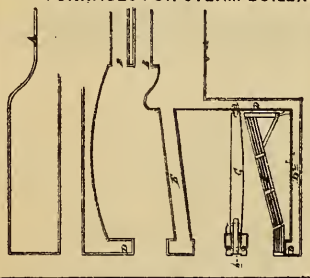
111,152, SCOTT A. SMITH.
COUPLINGS FOR SHAFTING.



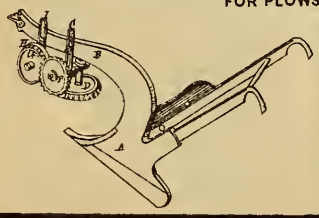
111,153, ALBERT H. STURGIS.
SIZING-MACHINES.



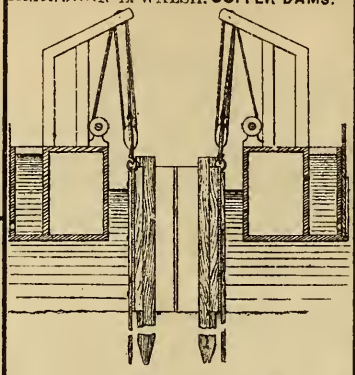
111,154, MORSE K. TAYLOR.
FURNACES FOR STEAM-BOILERS.



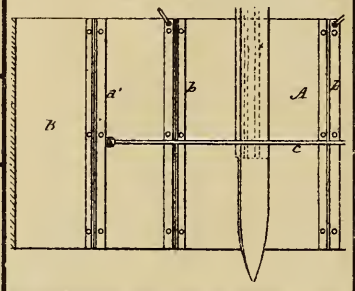
111,155, MARINUS VAN DUINE.
JAN DE JONGE.
MANURE-RAKE ATTACHMENTS FOR PLOWS.



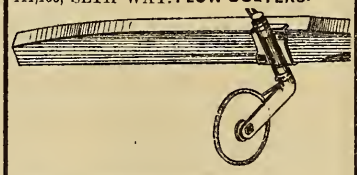
111,156, JOHN E. WALSH. COFFER-DAMS.



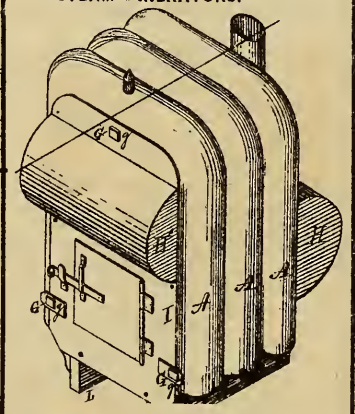
111,157, JOHN E. WALSH. COFFER-DAMS.



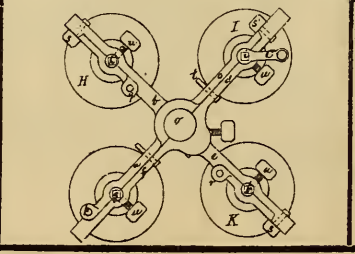
111,158, SETH WAY. PLOW-COLTERS.



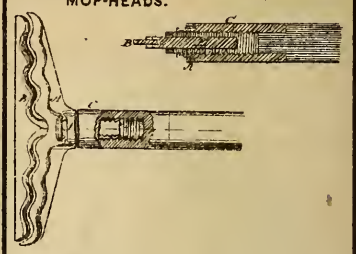
111,159, SAMUEL WEST.
STEAM-GENERATORS.



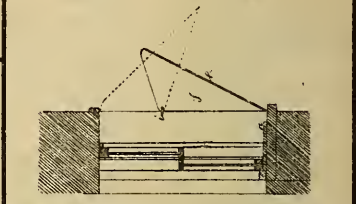
111,160, JOSEPH H. WESTCOTT.
SERVING-REELS.



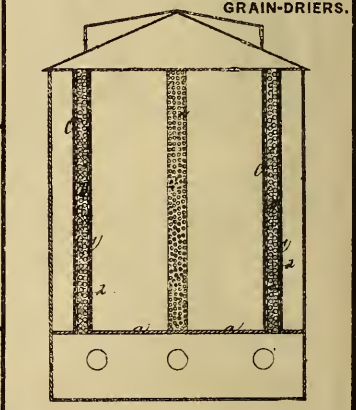
111,161, HENRY H. WETMORE.
MOP-HEADS.



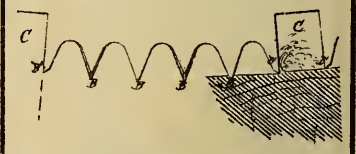
111,162, WILLIAM K. WINANT.
WINDOW-PROTECTORS.



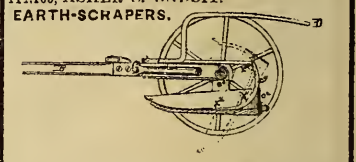
111,163, LEVI ABBOTT.
JOS. A. SHERBURNE.
GRAIN-DRIERS.



111,164, EMANUEL ANDREWS. SAWS.

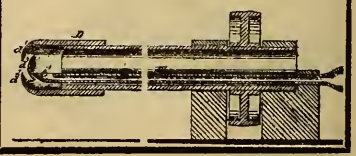


111,165, ASHER S. BABBIT.
EARTH-SCRAPERS.

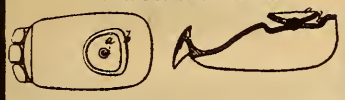


111,166, THOS. J. BARRON.
CONCRETES FOR PIPES, TUBES, BUILDINGS &c.

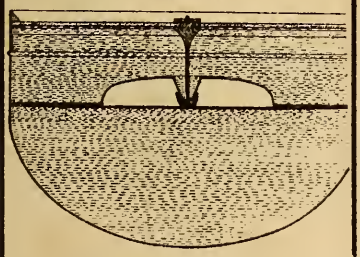
111,167, AARON BAUMAN,
ORIN O. WITHERELL.
HOLLOW AUGERS.



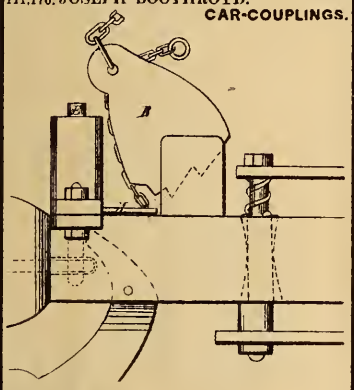
111,168. J. B. BEERS.
ATMOSPHERIC-PRESSURE ATTACHMENTS FOR DENTAL-PLATES.



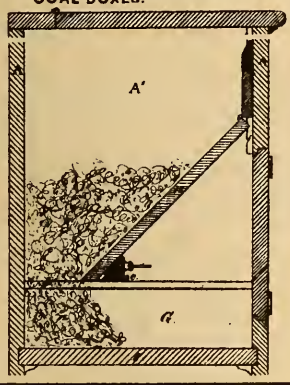
111,169. JOHN BLISS.
GEO. H. BLISS.
LIQUID-COMPASSES.



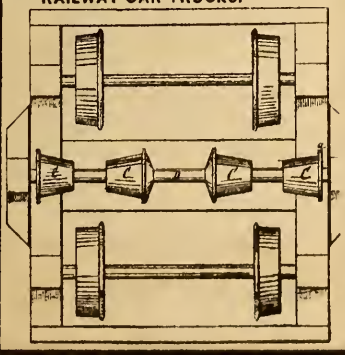
111,170. JOSEPH BOOTHROYD.
CAR-COUPLINGS.



111,171. TIMOTHY L. BOSART, Jr.
COAL-BOXES.

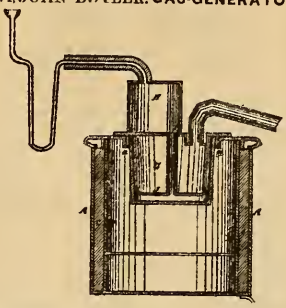


111,172. LOUIS D. BOYCE.
GEO. H. JONES.
RAILWAY CAR-TRUCKS.

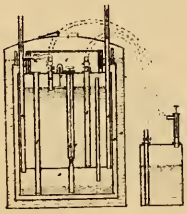


111,173. A. T. BRODIE.
R. R. SMITH.
COLLAPSING-CORES.

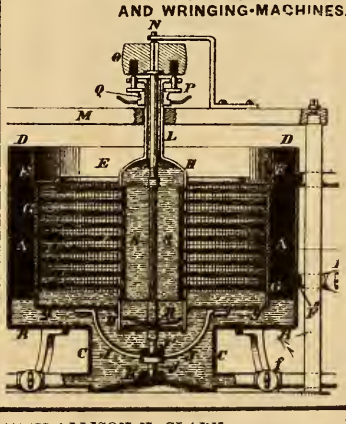
111,174. JOHN BUTLER. GAS-GENERATORS.



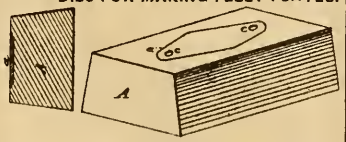
111,175. HENRY ALBERT CHAPIN.
APPARATUS FOR CARBURETING AIR.



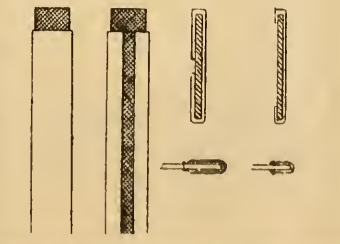
111,176 W. H. CHURCHMAN.
SCOURING, WASHING, AND WRINGING-MACHINES.



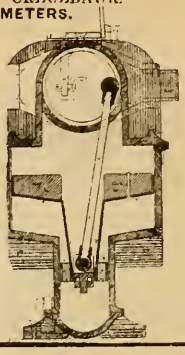
111,177. ALLISON N. CLARK.
DIES FOR MAKING FELLY-PLATES.



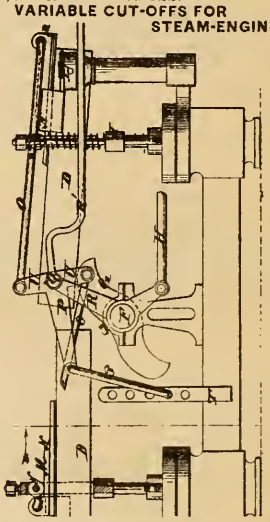
111,178. JAMES W. COREY. HATS.



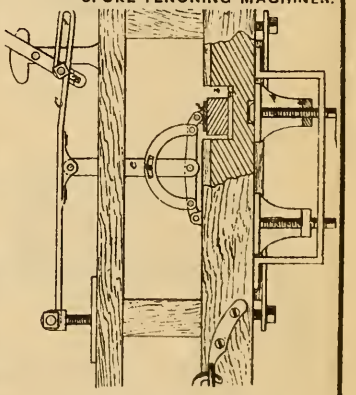
111,179 ROBT. CREUZBAUR.
FLUID-METERS.



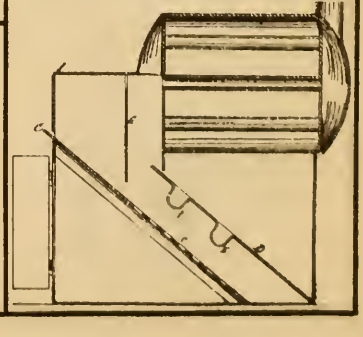
111,180, WILLIAM B. CROSS.
VARIABLE CUT-OFFS FOR STEAM-ENGINES.



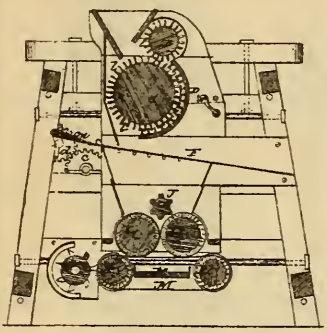
111,181. GODFREY E. CULP.
MATTHEW FLAIG.
SPOKE-TENONING MACHINES.



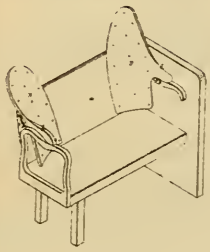
111,182, ALFRED DART
FURNACES FOR BURNING SMALL COAL OR CULM.



111,183. GEO. L. DAVENPORT.
CHARLES G. CASE.
WINE-PRESSES.

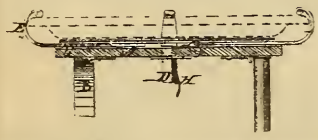


111,184. PETER F. DUCHEMIN.
REMOVABLE CAR-SEAT BACKS.

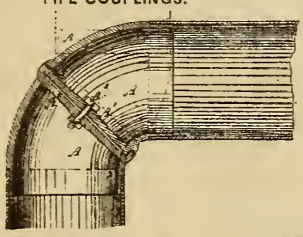


111,185. SAMUEL J. EVERETT.
TREATING FRUIT-TREES TO PREVENT THE RAVAGES OF INSECTS. &c.

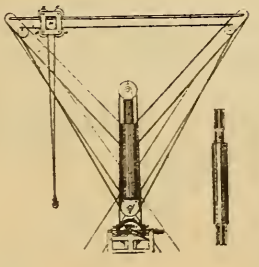
111,186. OBED FAHNESTOCK.
TRAY-HOLDERS.



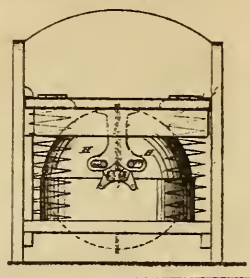
111,187. JOHN B. FINK.
PIPE-COUPLINGS.



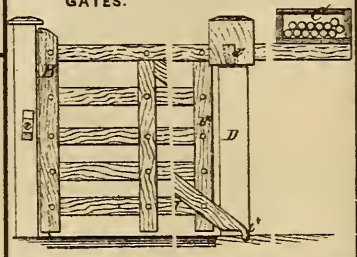
111,188. HENRY FLAD.
JAS. B. EADS.
HOISTING APPARATUS.



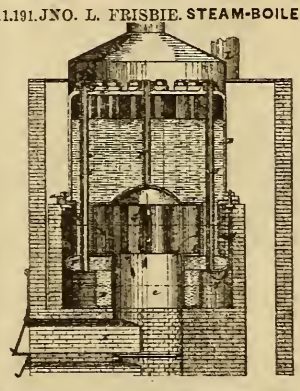
111,189. CHARLES FRANKISH.
WATER-CLOSETS.



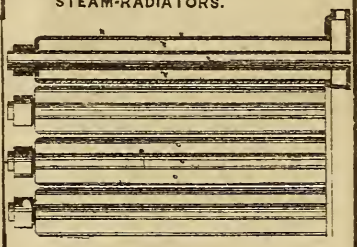
111,190. WILLARD GREEN FRANKLIN.
GATES.



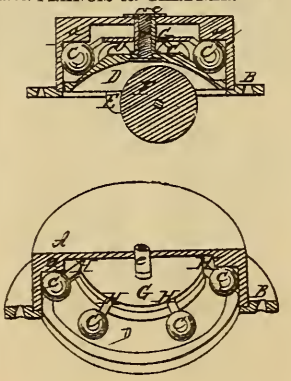
111,191. JNO. L. FRISBIE. STEAM-BOILERS.



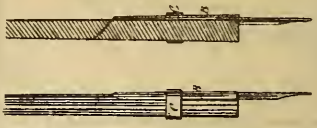
111,192. JNO. L. FRISBIE.
STEAM-RADIATORS.



111,193. FRANCIS A. GARDNER. CASTERS.

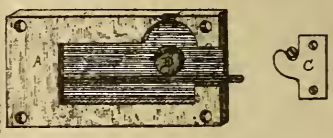


111,194. ALFRED M. GEORGE.
PEN-HOLDERS.

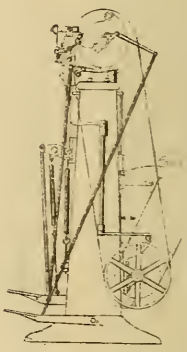


111,195. REBECCA GILKINSON.
MEDICAL COMPOUNDS FOR THE CURE OF RHEUMATISM.

111,196. WILLIAM GLUE.
SPRING-CATCHES FOR DOORS.



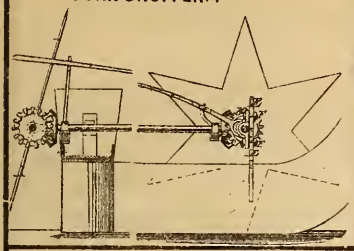
111,197. CHAS. GOODYEAR. Jr.
MACHINES FOR SEWING BOOTS AND SHOES.



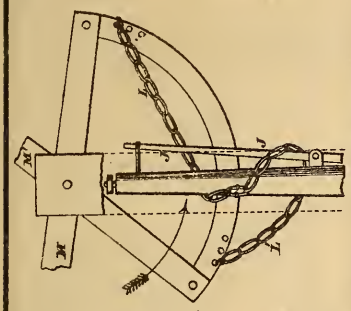
111,198. WILLIAM THOMAS GRANT.
COMPOUNDS FOR REMOVAL OF SCALE FROM STEAM-BOILERS.

111,199. FRANKLIN T. GRIMES.
BASTER-GUIDES FOR SEWING-MACHINES.

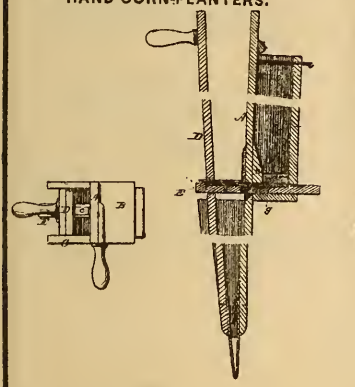
111,200, JACOB H. GROSS.
CORN-DROPPERS.



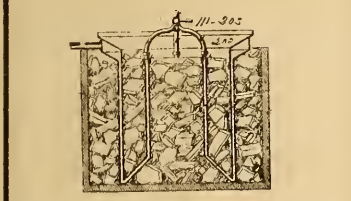
111,201, JOHN K. HARRIS, GATES.



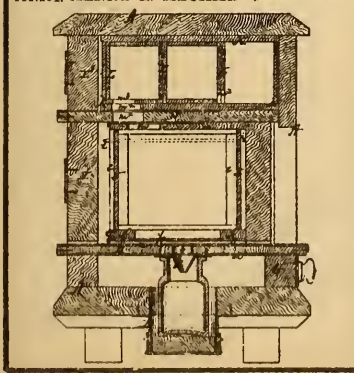
111,202, JAMES M. HARRISON.
HAND CORN-PLANTERS.



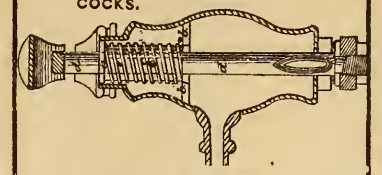
111,203, CARL WILH. HAUG.
BEER-COOLERS.



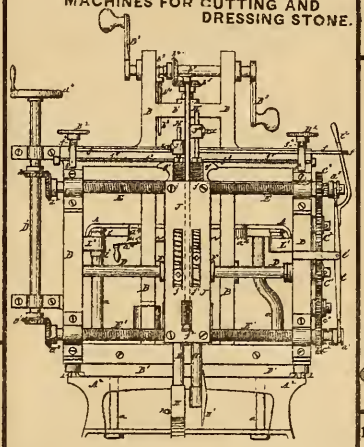
111,204, HENRY L. HECKMAN, BEE-HIVES.



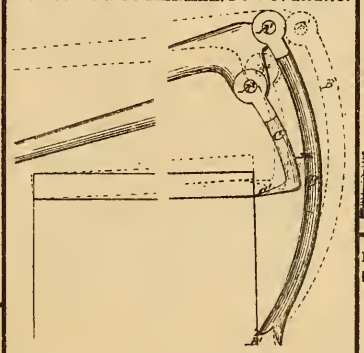
111,205, WILLIAM H. EDGES.
MATTHEW E. CAMPFIELD.
COCKS.



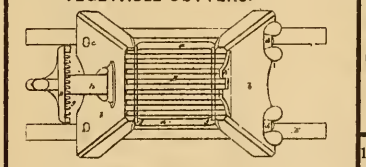
111,206, JACOB HEDRICK.
WILLIAM TASH.
HENRY KREIDLER.
MACHINES FOR CUTTING AND DRESSING STONE.



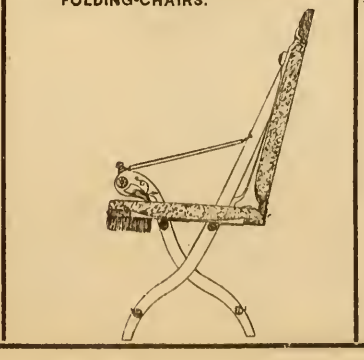
111,207, THOS. B. HENKLE, BOX-OPENERS.



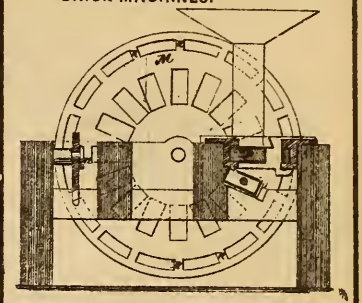
111,208, DAVID WALLACE HERSEY.
VEGETABLE-CUTTERS.



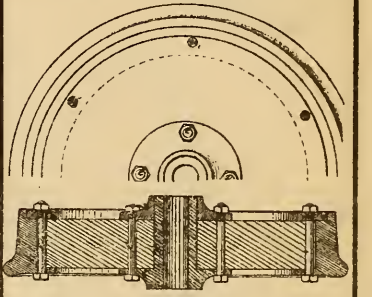
111,209 FRANCIS MARCH HOLMES.
FOLDING-CHAIRS.



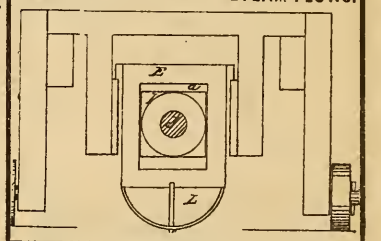
111,210, ERWIN C. HUBBARD.
BRICK-MACHINES.



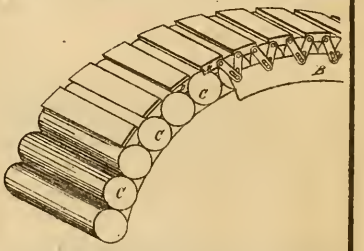
111,211, LEWIS B. HUNT.
RAILWAY-CAR WHEELS.



111,212, OLIVER HYDE.
OPERATING CUTTERS FOR STEAM-PLOWS.

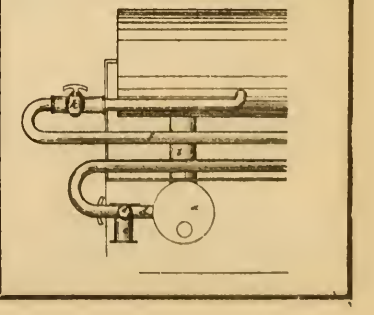


111,213, OLIVER HYDE.
ELASTIC TIRES FOR TRACTION-ENGINES.

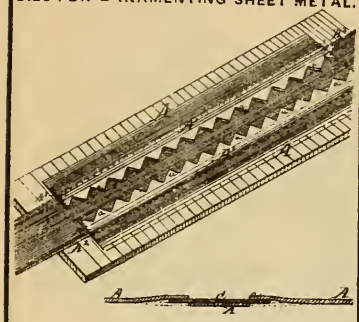


111,214, SAMUEL B. JENKS.
FREDERICK A. HOLCOMB.
MANUFACTURE OF LEATHER.

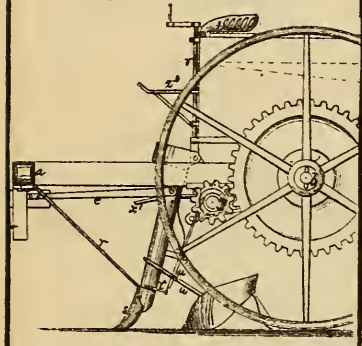
111,215 EDWARD L. JONES.
COMBINED FEED-WATER HEATERS AND CIRCULATORS.



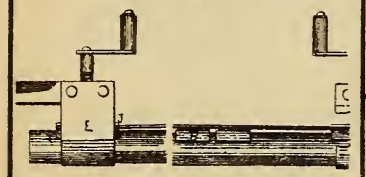
111,216, C. KAUFMANN.
DIES FOR ORNAMENTING SHEET METAL.



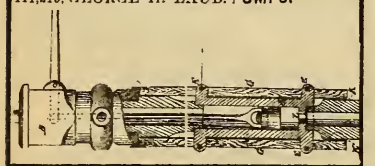
111,217, HIRAM J. KENT.
POTATO-PLANTERS.



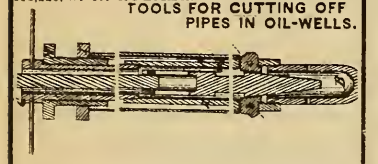
111,218, EDWARD LACEY.
DEVICES FOR BENDING WOOD.



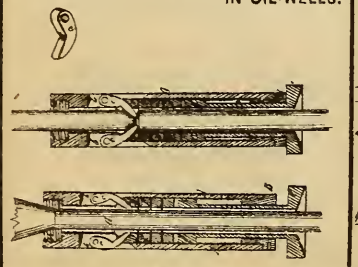
111,219, GEORGE H. LAUB. PUMPS.



111,220, J. H. LUTHER.
TOOLS FOR CUTTING OFF PIPES IN OIL-WELLS.

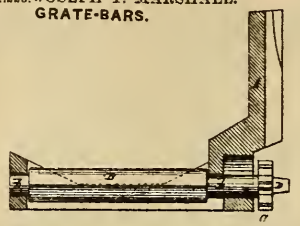


111,221, J. H. LUTHER.
TOOLS FOR CUTTING OFF AUGER-STEMS IN OIL-WELLS.

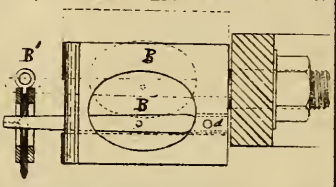


111,222, B. F. LYFORD, M. D.
EMBALMING

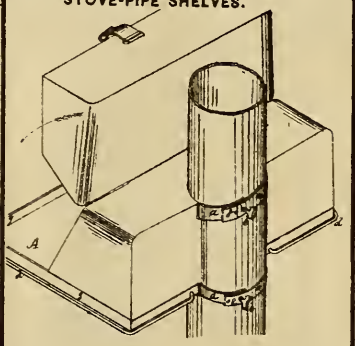
111,223, JOSEPH T. MARSHALL.
GRATE-BARS.



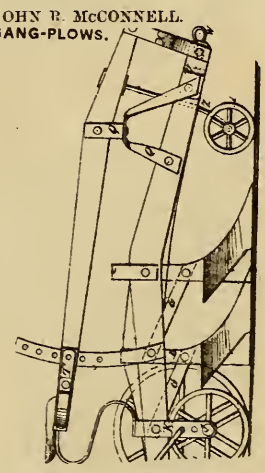
111,224, JOHN MAYBEN. CAR-COUPLINGS.



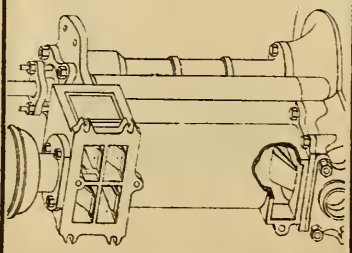
111,225, JAMES McCALLUM.
STOVE-PIPE SHELVES.



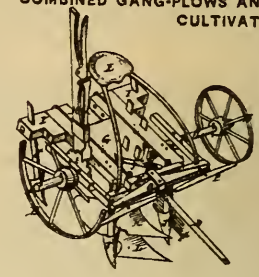
111,226 JOHN B. McCONNELL.
GANG-PLOWS.



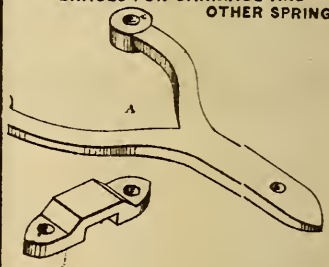
111,227, JOHN H. McGOWAN.
PUMPS.



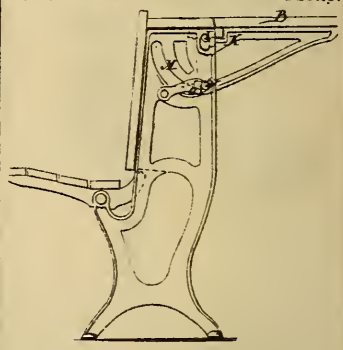
111,228, JAMES A. MEDARIS.
COMBINED GANG-PLOWS AND CULTIVATORS.



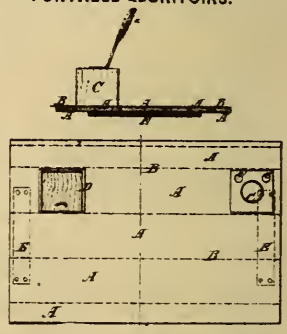
111,229, LUMON C. MILLER.
BRACES FOR CARRIAGE AND OTHER SPRINGS.



111,230, JOHN MILWAIN FOLDING DESKS.

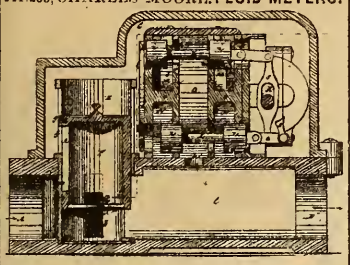


111,231, WALTER G. MITCHELL.
PORTABLE ESCRITOIRS.

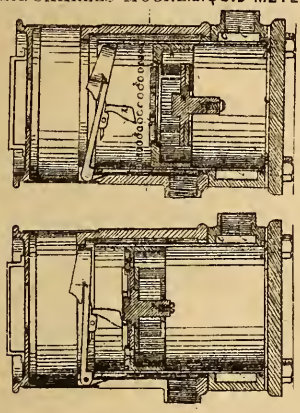


111,232, EDWARD T. MITHOFF.
JESSE W. DANN.
BUGGY-SEATS.

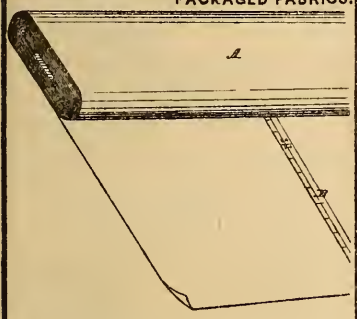
111,233, CHARLES MOORE. FLUID-METERS.



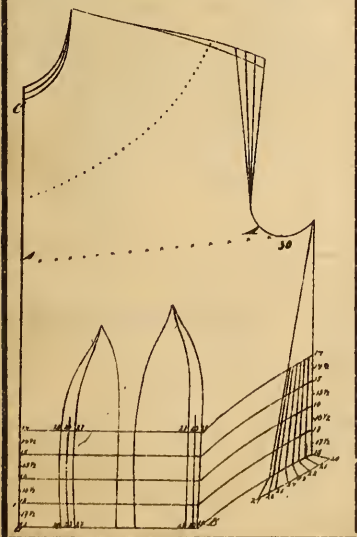
111,234, CHARLES MOORE. LIQUID-METERS.



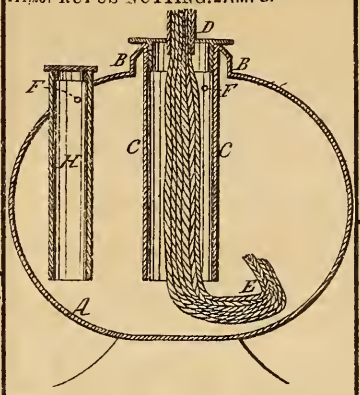
111,235, EDWARD MORGAN. MEASURING ATTACHMENTS FOR PACKAGED FABRICS.



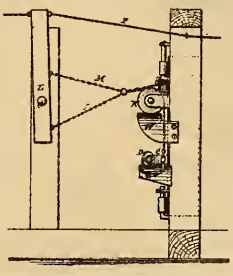
111,236, SCHAMU MOSCHCOWITZ. BODY-LININGS FOR LADIES' DRESSES.



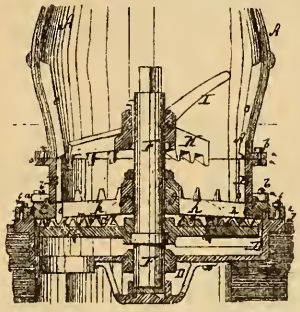
111,237 RUFUS NUTTING. LAMPS.



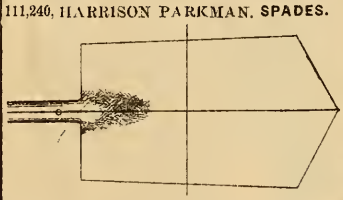
111,238, PATRICK O'NEILL GATES.



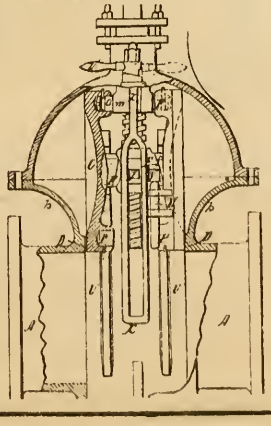
111,239, G. E. PALLEN, BARK-MILLS. F. P. AVERY.



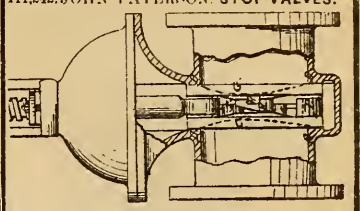
111,240, HARRISON PARKMAN. SPADES.



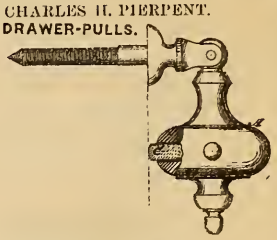
111,241, JOHN PATERSON. STOP-VALVES.



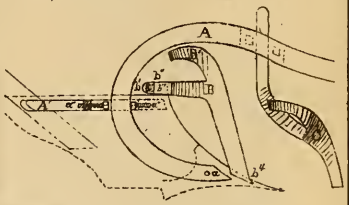
111,242, JOHN PATERSON. STOP-VALVES.



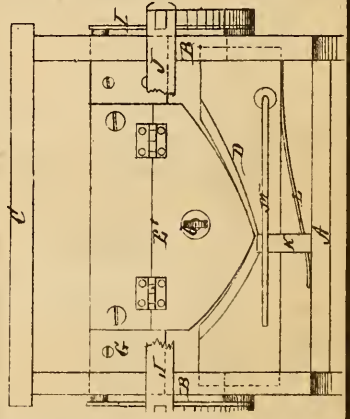
111,243, CHARLES H. PIERPENT. DRAWER-PULLS.



111,244, JOSEPH PINKHAM. PLOWS.

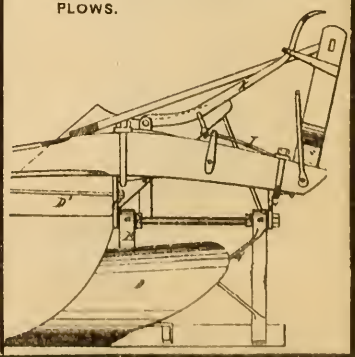


111,245, WILLIAM POLSGROVE. BOOT-CRIMPERS.

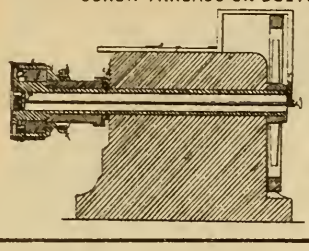


111,246, GEORGE BARTLETT PRESCOTT. CONNECTORS FOR TELEGRAPH-WIRES.

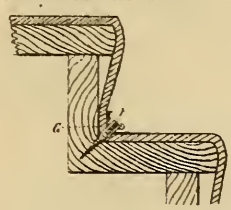
111,247, JACKSON P. PRITCHARD. PLOWS.



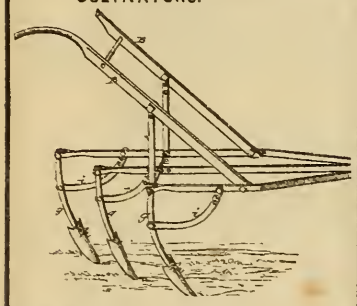
111,248 SALMON W. PUTNAM, Jr.
MACHINES FOR CUTTING SCREW-THREADS ON BOLTS.



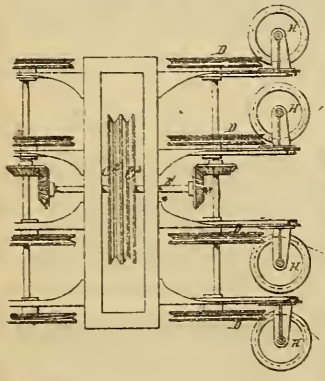
111,249, EMIL RATH.
STAIR-ROD FASTENINGS.



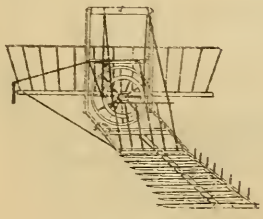
111,250, WILLIAM BENJAMIN READ.
CULTIVATORS.



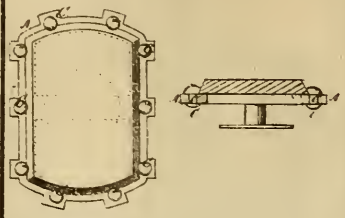
111,251, JAMES RICHMOND.
MACHINERY FOR TRANSMITTING AND DISTRIBUTING MOTIVE POWER.



111,252, JOHN P. RIDEOUT.
HAY-LOADERS.

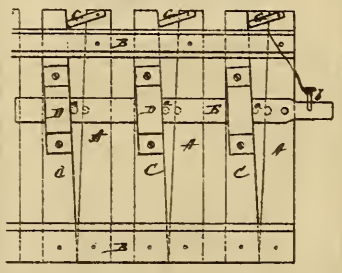


111,253, WILLIAM RIKER
SETTING STONES, &c.

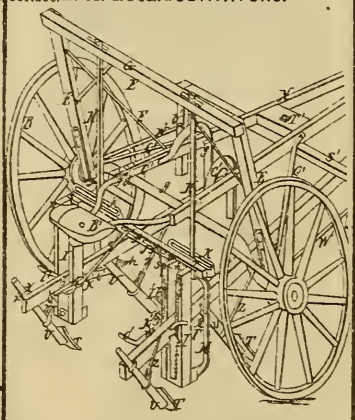


111,254, EDW. S. RITCHIE.
CARDS FOR MARINERS' LIQUID-COMPASSES.

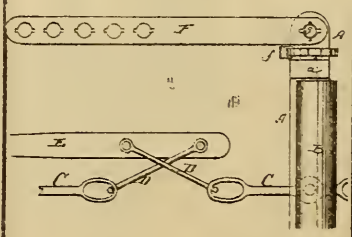
111,255, JOSHUA A. ROSBACK.
CATTLE-STANCHIONS.



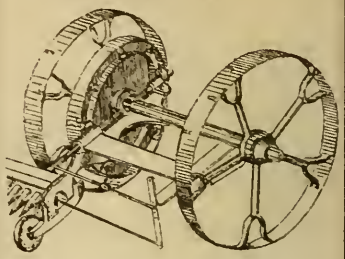
111,256, H. M. ROSE, CULTIVATORS.



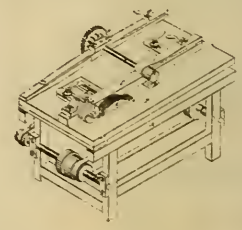
111,257, GEORGE W. RUNK.
BELT-TIGHTENERS.



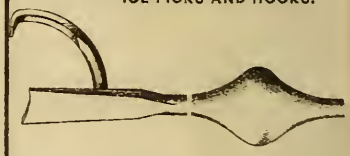
111,258 GEO. T. SAVARY.
MOWING-MACHINES.



111,259, CHARLES SCHLEICHER.
LATH-MACHINES.



111,260, EIDE H. SCHMULTS.
JACOB BAKER.
ICE-PICKS AND HOOKS.



111,261, ADOLPH SCHNABEL.
TH. HENNING.
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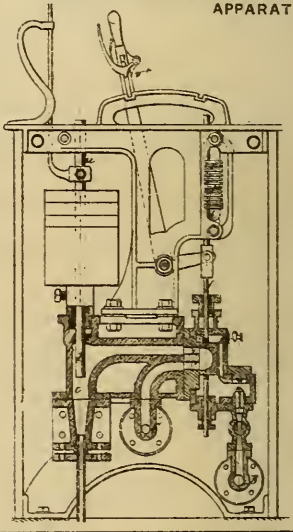
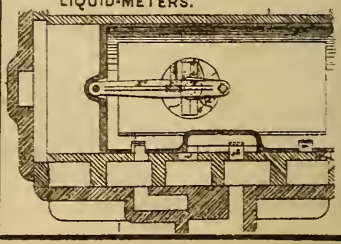


111,262, HENRY C. SERGEANT.
LIQUID-METERS.



111,263. FRANK B. SHEARER.
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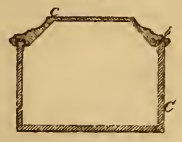
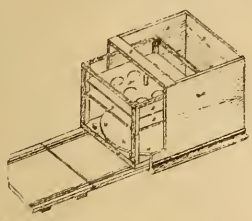
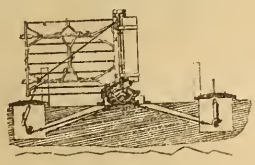


111,264. NICHS. H. SHIPLEY.
APPARATUS AND PROCESSES FOR CANNING AND PRESERVING MEATS, FRUITS, VEGETABLES, &c.



111,265. HENRY SHOEMAKER.
JOHN SHOEMAKER.
ROCK-DRILLS.

111,266. LYMAN W. SIBLEY. GATES.



111,267. BENJAMIN R. SMITH.
JOHN CAMPBELL HARRIS.
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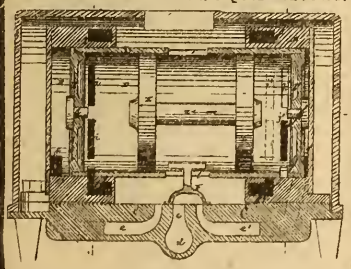
111,268. W. E. SNEDIKER. LIQUID-METERS.



111,269. THELESPHORE SPENARD.
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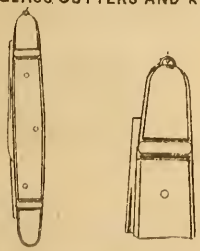

111,270. TIMOTHY S. SPERRY.
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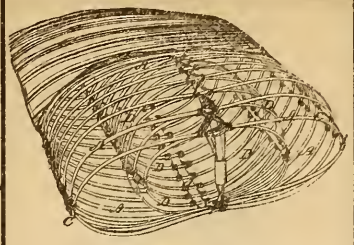

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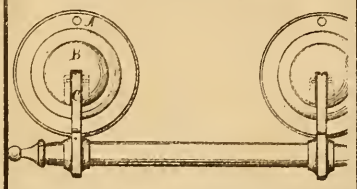
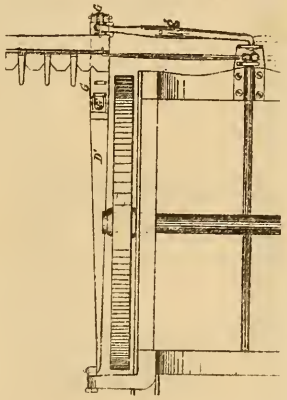
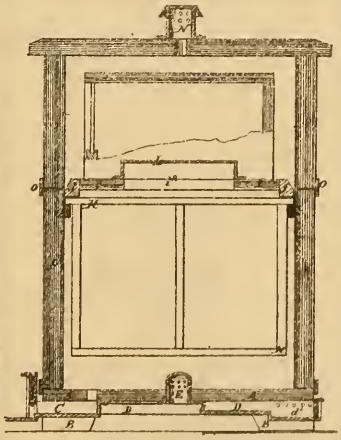


111,272. H. STUCKEY. HARVESTERS.



111,273. DAVID H. SWARTZ. BEE-HIVES.



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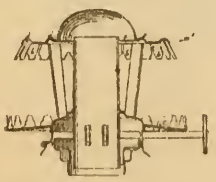

111,275. EBEN C. THAXTER.
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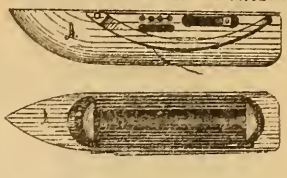

111,276. WM. C. THORNTON.
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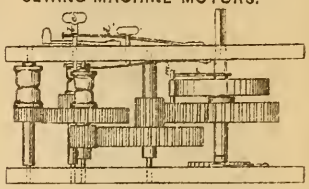

111,277. JOHN J. TOMLINSON.
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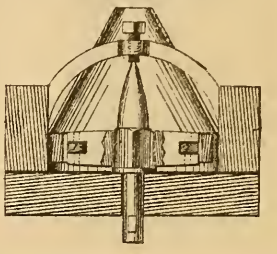
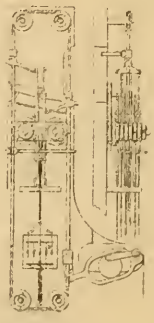
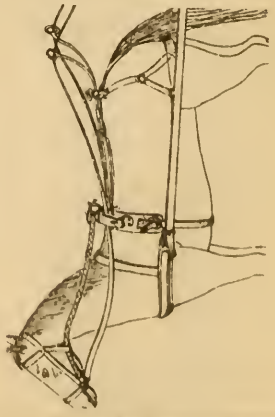


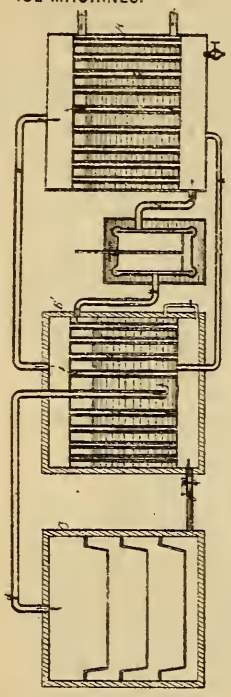
111,278. HAMILTON E. TOWLE. LOOMS.



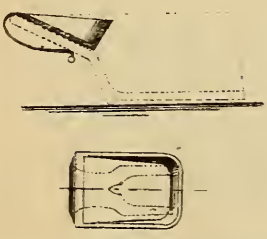
111,279. ROSS TOWNSEND.
REIN-SUPPORTERS.



111,280. CRAZIO LUGO.
DAVID K. TUTTLE.
ICE-MACHINES.



111,281. JOHN T. WALKER. SALT-CELLARS.



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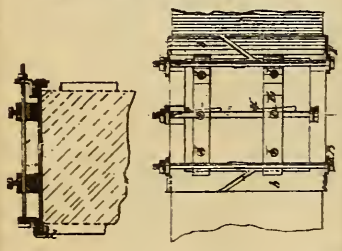
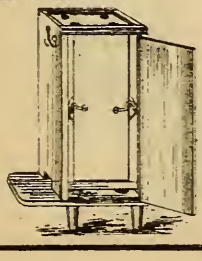
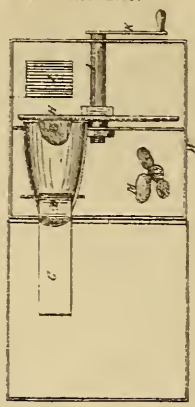
MILLSTONE BALANCES.



111,283. WILLIAM WAMBACH.
BEE-HIVES.



111,284. DEWITT C. WARNER.
NUTMEG-GRATERS.



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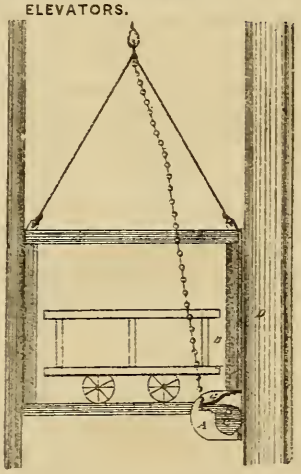
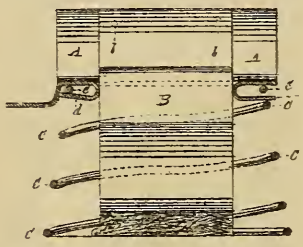
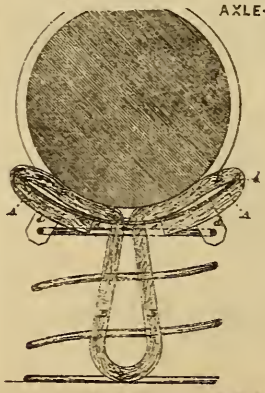
ELEVATORS.



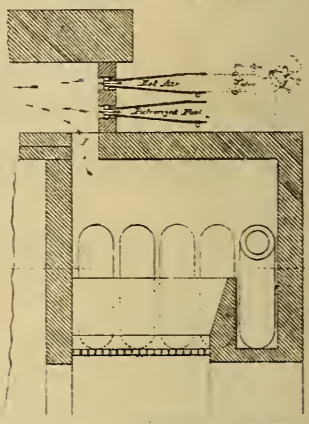
111,286. ISAAC P. WENDELL.
LUBRICATORS FOR RAILWAY-CAR AXLES.



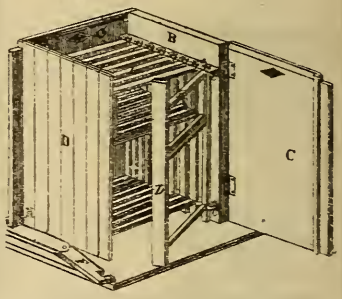
111,287. ISAAC P. WENDELL.
LUBRICATORS FOR RAILWAY-CAR AXLE-BOXES.



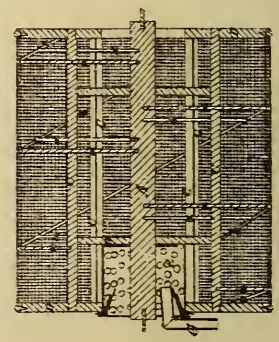
111,288. JAMES D. WHELPLEY.
JACOB J. STORER.
GAS-GENERATING AND BLAST-HEATING APPARATUS FOR METAL-LURGIC AND OTHER PURPOSES.



111,289. ASBURY WILKINSON.
BEE-HIVES.



111,290. ALLISON L. WILLIAMS
FLOUR-BOLTING REELS.



111,291. THOMAS WILLIAMS.
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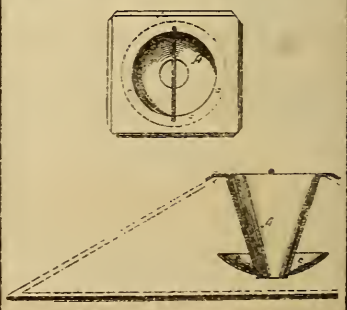
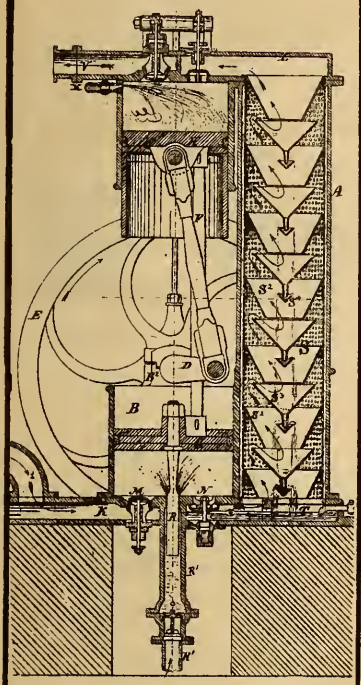
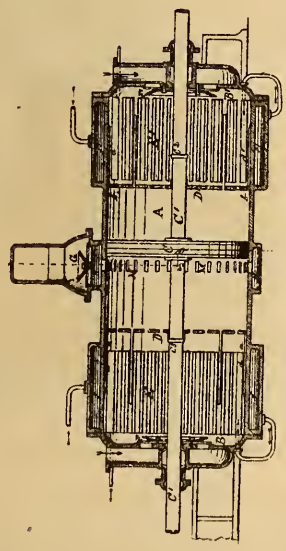


111,292. FR. WINDHAUSEN.
APPARATUS FOR MAKING ICE AND COOLING.



111,293. FRANZ WINDHAUSEN,
IMPROVEMENT IN ICE-MACHINES.



111,294. FINLEY J. WRIGHT, LIVINGSTON W. WANDELL.
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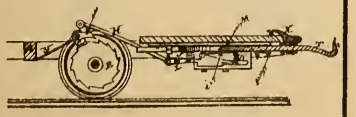

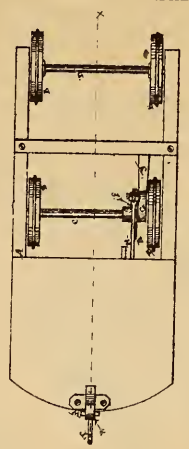

111,295. ISAAC J. WYMAN.
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4,237. HENRY M. PAINE.
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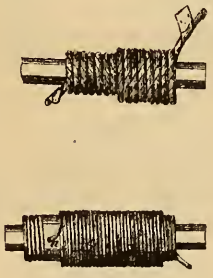

4,238. WILLIAM PETTIT.
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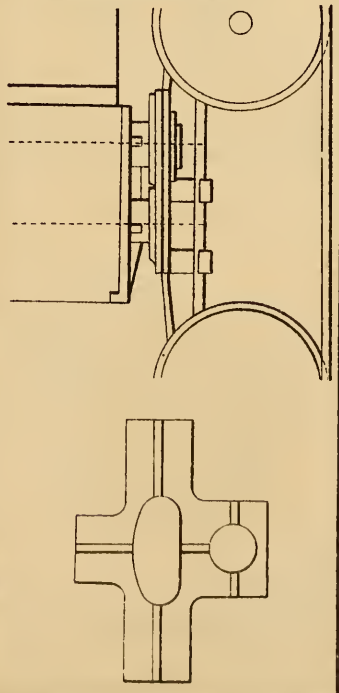

4,239. L. F. ROBERTSON.
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4,240. J. B. SLAWSON.
PASSENGER-FARE BOXES.

4,241. T. T. WOODRUFF.
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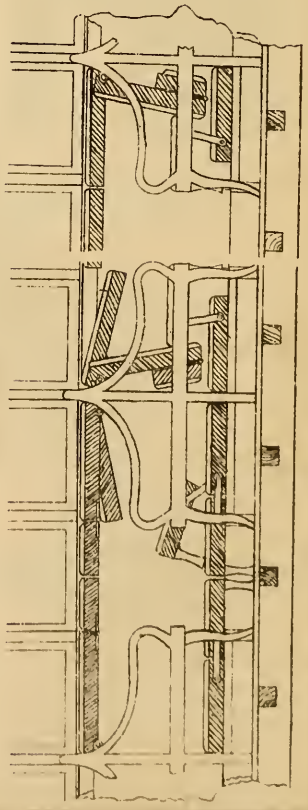

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111,296. EDWIN H. ADGATE.
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111,297. JAMES M. ADOLPHUS.
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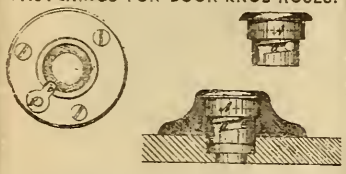

111,298. CHRISTOPHER AHRENS.
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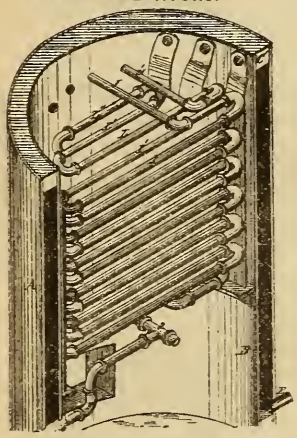
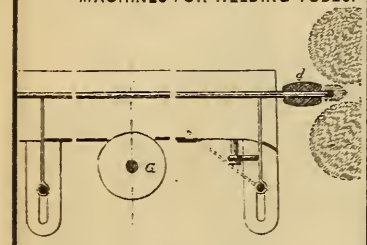


111,299. W. C. ALLISON
MACHINES FOR WELDING TUBES.



111,300. ELIJAH ALTMAN
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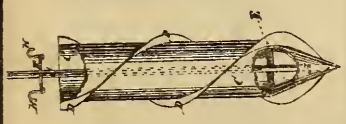

111,301. JOHN ANTRAM.
ELWOOD B. MULLIN.
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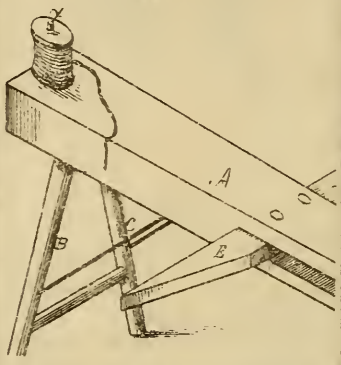
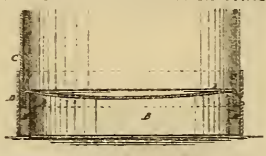
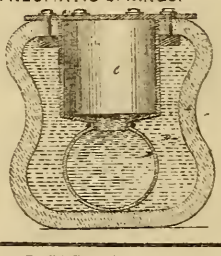


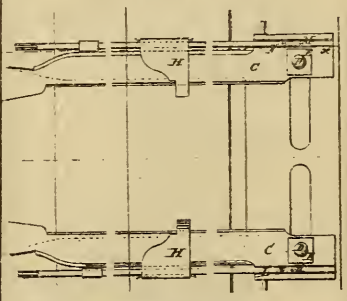
111,302. THOMAS M. BELL. MILK-CANS.



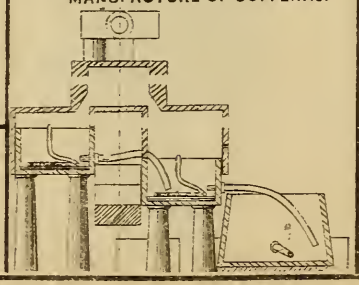
111,303. JOHN BEVAN.
BEN. W. HITCHCOCK
PNEUMATIC SPRINGS.



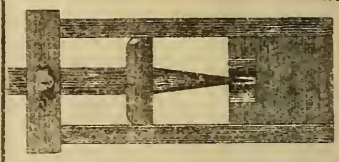
111,304. A. J. BEVANS.
PRINTING-PRESS GUIDES.



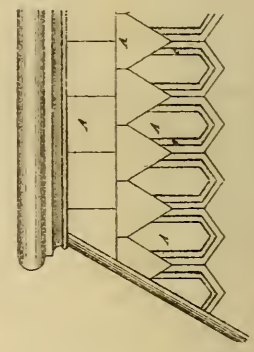
111,305. R. DE WITT BIRCH
MANUFACTURE OF COPPERAS.



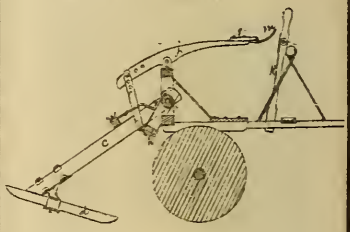
111,306. ROBT. BLAKE.
APPARATUS FOR OPENING THE EYES OF PICKS.



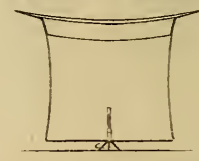
111,307. GEORGE W. BLISS.
METALLIC ROOFINGS.



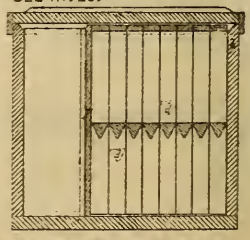
111,308. OLPHA BONNEY, JR.
HORSE HAY-RAKES.



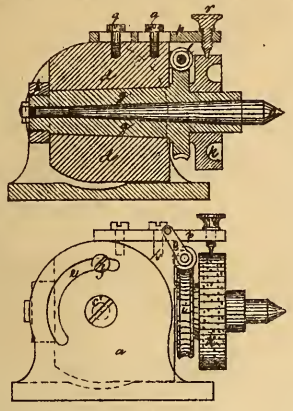
111,309. J. A. BORTHWICK.
HAT-SUPPORTERS AND VENTILATORS COMBINED.



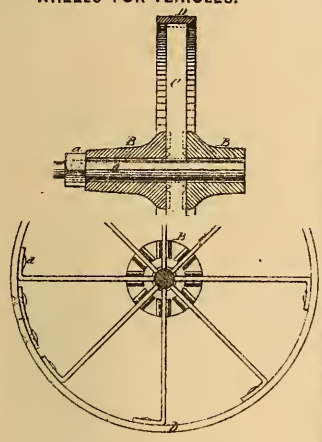
111,310. ARTHUR BRADSHAW.
BEE-HIVES.



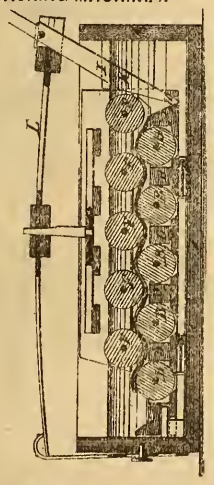
111,311. AMOS H. BRAINARD.
HEAD-STOCKS FOR MILLING-MACHINES.

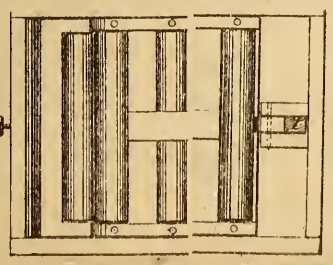


111,312, ALEXANDER D. BROWN, SR.
WHEELS FOR VEHICLES.

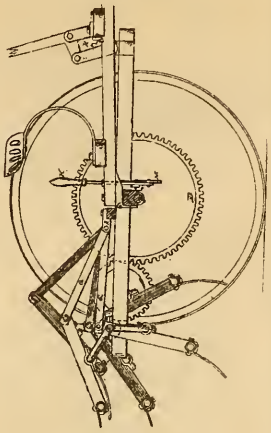


111,313. EDMUND P. BROWN.
WASHING-MACHINES.

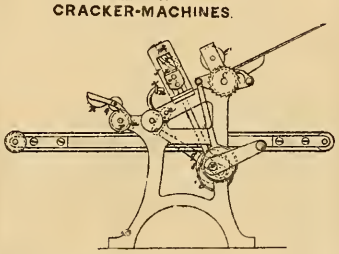




111,314. EZEKIEL W. BULLARD.
HAY-TEDDERS.

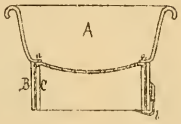


111,315. WM. CAIRNS.
CRACKER-MACHINES.



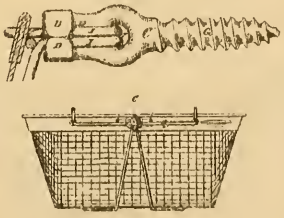
111,316, H. CAMP, PUMPS.

111,317, J. H. CHAPPEL.
CULINARY VESSELS.

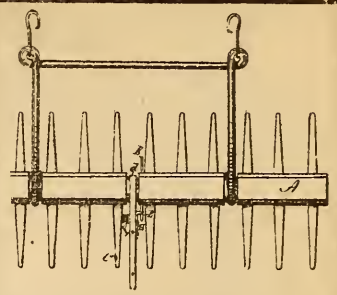


111,318, DECIUS W. CLARK.
COMPOUNDS FOR ENAMELING BRICKS.

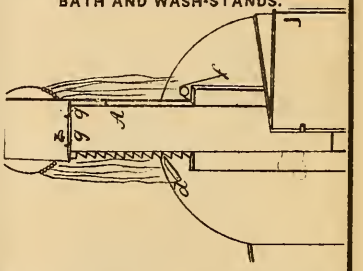
111,319, WM. F. COLLIER.
CORN-POPPERS.



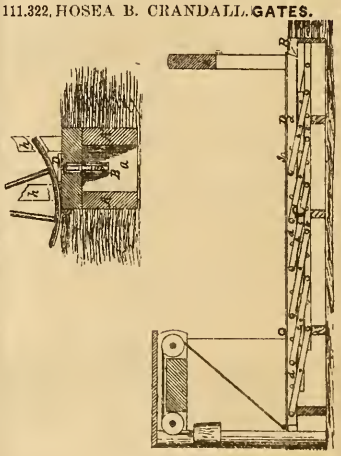
111,320, ISAAC N. CONDRA.
HORSE HAY-RAKES.



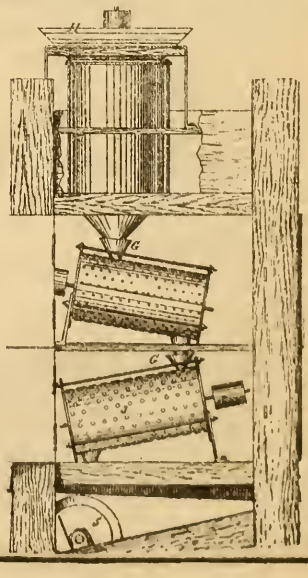
111,321, ROYAL COOPER.
BATH AND WASH-STANDS.



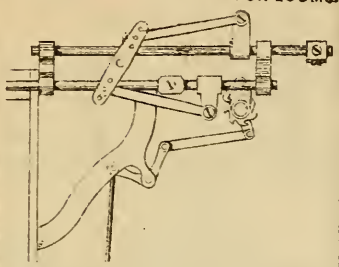
111,322, HOSEA B. CRANDALL. GATES.



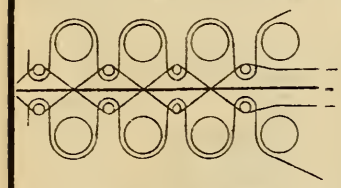
111,323, ANDREW CRAWFORD
IRAM D. CRAWFORD.
GRAIN, COFFEE, AND RICE-CLEANERS.



111,324, GEO. CROMPTON.
HARNESS-OPERATING MECHANISMS FOR LOOMS.

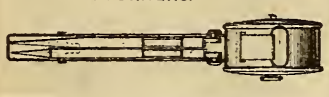


111,325, GEO. CROMPTON. CARPETS.

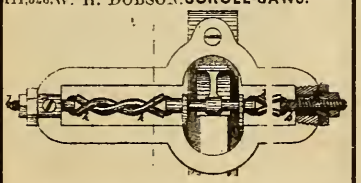


111,326, FRANK J. CULVER.
PLATFORM HORSE-POWERS.

111,327, MOSES W. DILLINGHAM.
SCREW-DRIVERS.

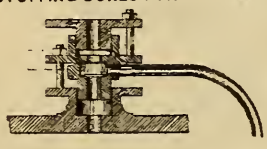


111,328, W. H. DOBSON. SCROLL-SAWS.

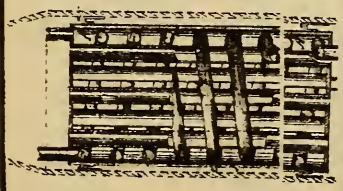


111,329, JOEL A. H. ELLIS.
COMPOUND LIQUIDS FOR USE IN VAPOR-ENGINES.

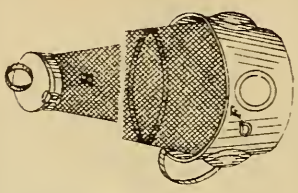
111,330, JOEL A. H. ELLIS.
STUFFING-BOXES FOR ENGINES.



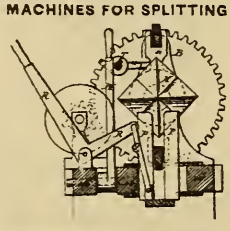
111,331, JOEL A. H. ELLIS.
VAPOR-GENERATORS FOR VAPOR-ENGINES.



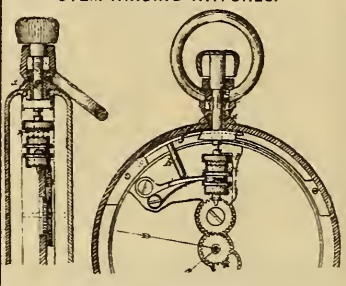
111,332, HARRIET A. FARNAM.
FLY-CATCHERS.



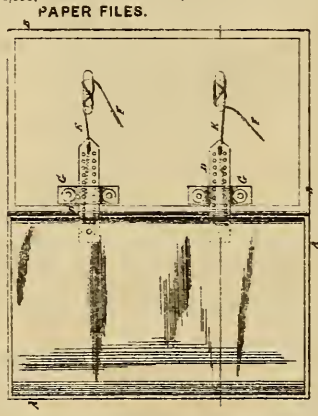
111,333, FRANK FICHT.
MACHINES FOR SPLITTING WOOD.



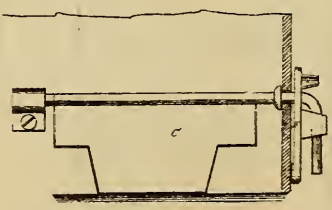
111,334, WALTER H. FITZ GERALD.
STEM-WINDING WATCHES.



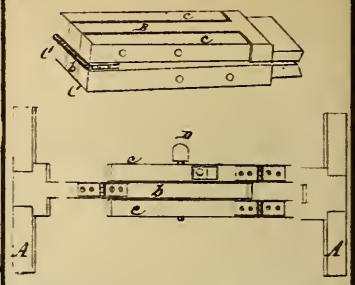
111,335, JOHN G. FLOYD, JR.
PAPER FILES.



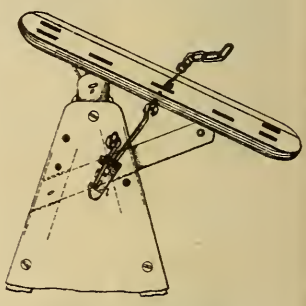
111,336, JAMES M. FREAR.
DAMPERS.



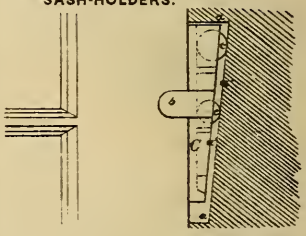
111,337, CHAS. E. GALE.
CARPET-STRETCHERS.



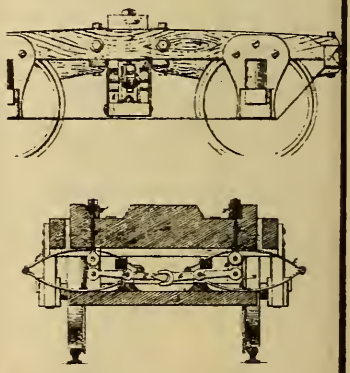
111,338, GEORGE B. GARLINGHOUSE.
ROAD-SCRAPERS



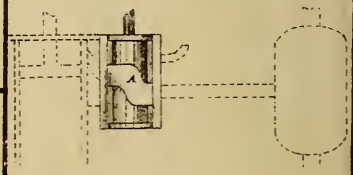
111,339, PHILETUS W. GATES.
SASH-HOLDERS.



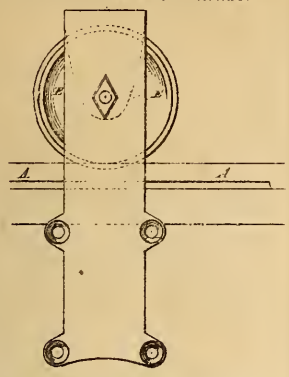
111,340, CHAS. GRAHAM
RAILWAY-CAR TRUCKS.



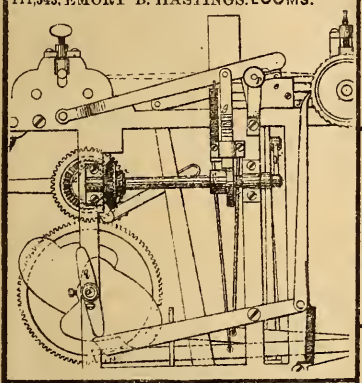
111,341, JOSEPH F. HAMILTON.
VALVES FOR STEAM-PUMPS.



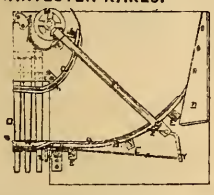
111,342 THOS. FOSTER HAMILTON.
DOOR-HANGERS AND RAILS.



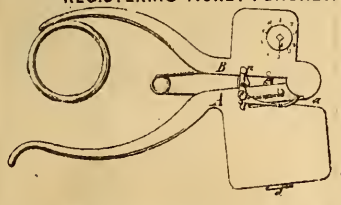
111,343. EMORY B. HASTINGS. LOOMS.



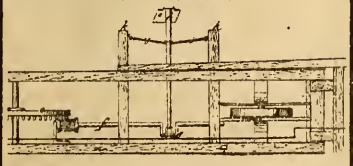
111,344. GEORGE W. HINES.
HARVESTER-RAKES.



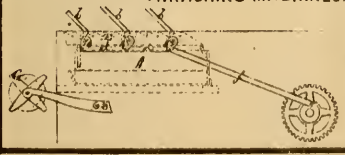
111,345. AUSTIN D. HOFFMAN.
REGISTERING TICKET-PUNCHES.



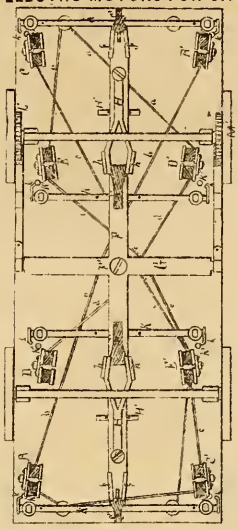
111,346. JOSEPH R. HOOD.
COTTON-CHOPPERS.



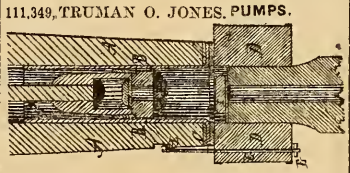
111,347. JAMES W. HUNTOON.
GRAIN-SEPARATORS FOR THRASHING-MACHINES.



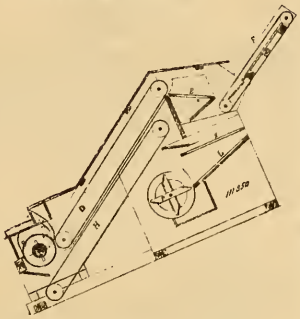
111,348. SOLOMON JONES.
ELECTRO-MOTORS FOR CARS.



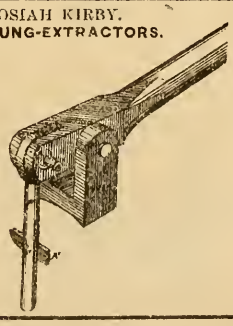
111,349. TRUMAN O. JONES. PUMPS.



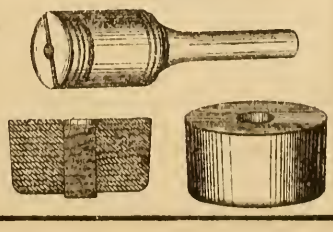
111,350. LOUIS KAMP.
CORN-SHELLING AND CLEANING-MACHINES.



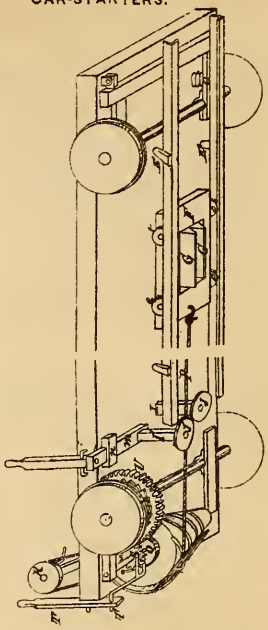
111,351. JOSIAH KIRBY.
BUNG-EXTRACTORS.



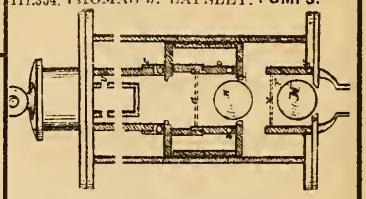
111,352. JOSIAH KIRBY. BUNGS.



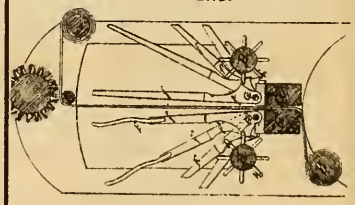
111,353. GEO. B. KIRKHAM.
CAR-STARTERS.



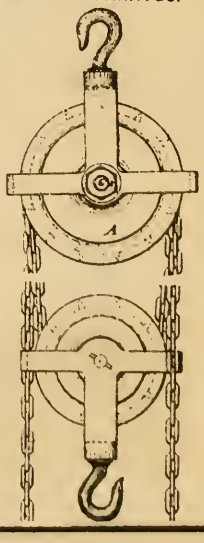
111,354. THOMAS J. LAPSLEY. PUMPS.



111,355. H. HENRY LINDHORST.
CARPET-CLEANERS.

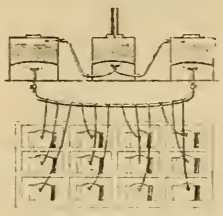


111,356 ANDREW B. LIPSEY.
HOISTING APPARATUS.

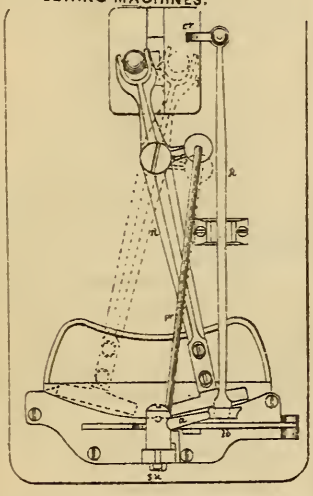


111,357. J. M. LOWENSTEIN.
FERTILIZING COMPOUNDS.

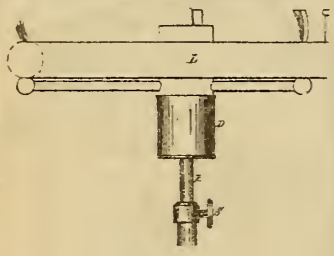
111,358. B. F. LYFORD, M. D.
DISINFECTING AND VENTILATING BURIAL VAULTS.



111,359. WILLIAM A. MACK.
SEWING-MACHINES.

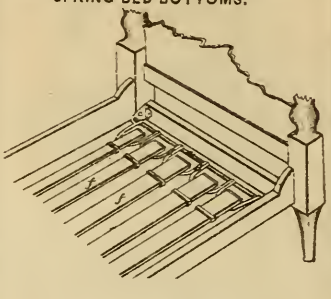


111,360. CHARLES D. MACQUEEN. LAMPS.

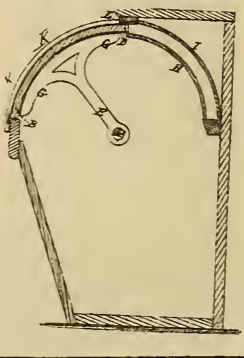


111,361. ELIAS MAGRUDER.
HOISTING-FORKS.

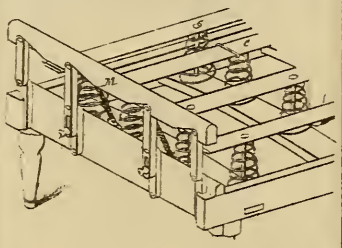
111,362 ERWIN WILLIAMS MAXSON.
SPRING BED-BOTTOMS.



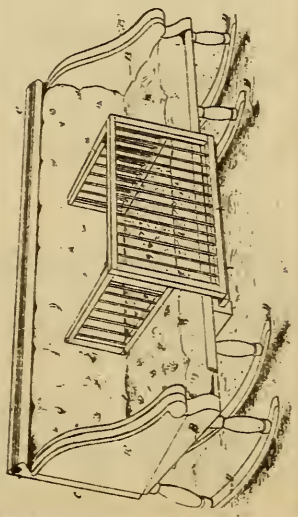
111,363. ALONZO S. MAXWELL.
COVERS FOR BINS.



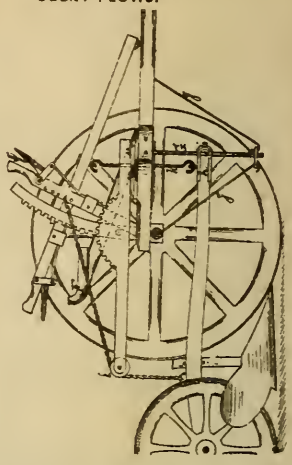
111,364. WILLIAM McARTHUR.
BEDSTEADS AND SPRING BED-BOTTOMS.



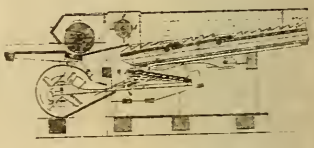
111,365 WILLIAM McARTHUR
COMBINED ROCKING SOFAS AND BEDSTEADS.



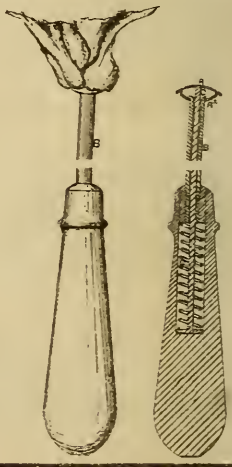
111,366. EDWARD MELOY.
ABRAM R STANLEY
SULKY-PLOWS.



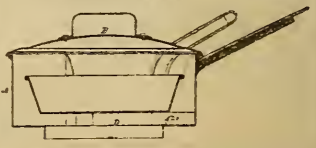
111,367, JOSEPH H. MILLER.
THRASHING-MACHINES



111,368. CHARLES S. MOORE.
SILAS A. MOORE.
LAMP CHIMNEY AND DISH WASHERS.

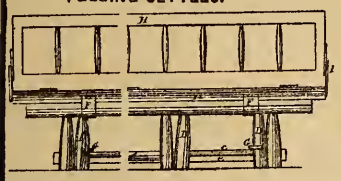


111,369, FRANCIS MORANDI.
CULINARY VESSELS.

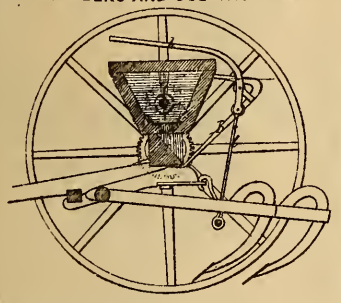


111,370, CAMPBELL MORFIT.
MANUFACTURE OF SUPERPHOSPHATE OF LIME.

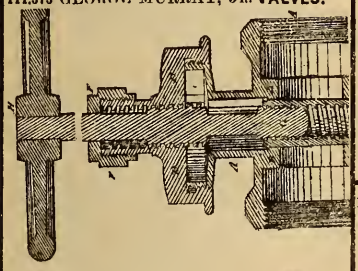
111,371 HENRY T. MORSE.
FOLDING SETTEES.



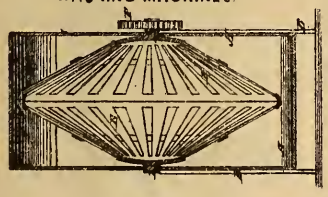
111,372, JAMES T. MOTT.
SEEDERS AND CULTIVATORS.

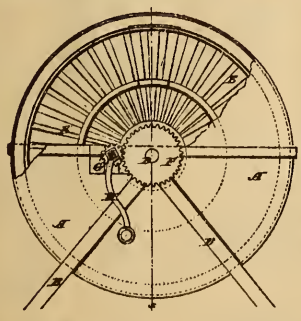


111,373 GEORGE MURRAY, JR. VALVES.

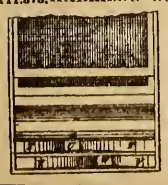


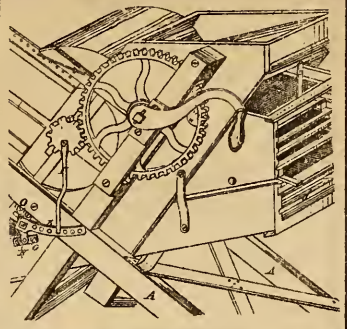
111,374, ANDREW JACKSON NAVE.
WASHING-MACHINES.





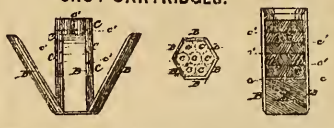
111,375, HARRISON OGBORN.
FANNING-MILLS.



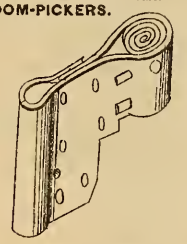


111,376, J. W. OSBORNE.
PRESERVING-COMPOUNDS FOR THE HANDS, &c.

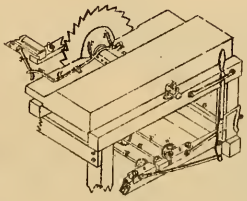
111,377, SETH WHITE PAINE.
SHOT-CARTRIDGES.



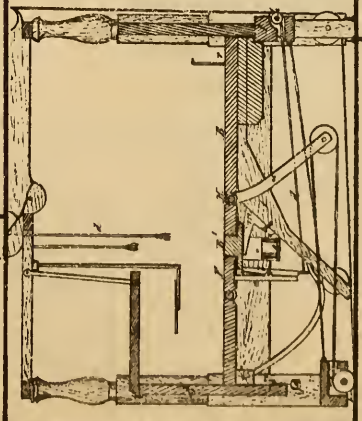
111,378, JEROME M. PARKER.
LOOM-PICKERS.



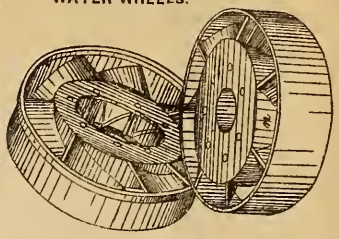
111,379, WILLIS PORTER.
SHINGLE-MACHINES.



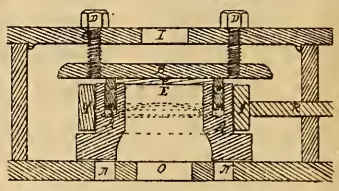
111,380, WM. O. REID.
INVALID BEDSTEADS.



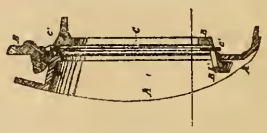
111,381 JACOB B. REYMAN.
WATER-WHEELS.



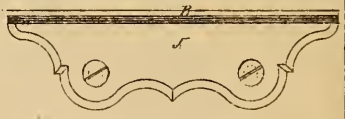
111,382, GEO. W. RICHARDSON.
BALANCE SLIDE-VALVES FOR STEAM-ENGINES.



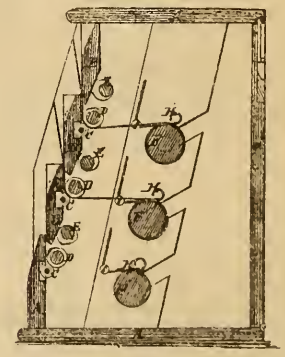
111,383, GEO. G. RICHMOND.
MICA-FRAMES FOR STOVES.



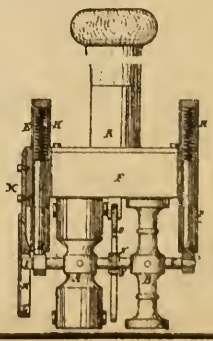
111,384 PARLEY D. ROOT.
PORTABLE SHELVES AND SUPPORTS.



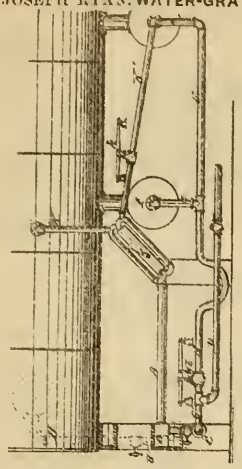
111,385, JULIUS ROPES.
POSTAGE-STAMP HOLDERS.



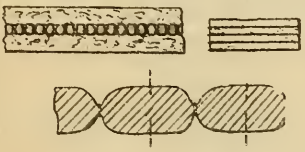
111,386, GOTTLIEB ROST.
HAND-STAMPS.



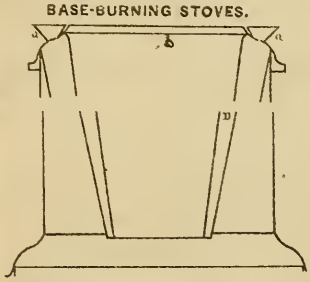
111,387. JOSEPH RYAN. WATER-GRATES.



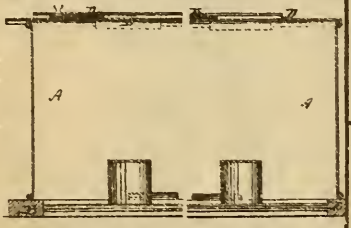
111,388. E. SCHNAUTZ.
ROLLS FOR HAIR-DRESSING



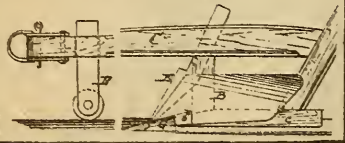
111,389. JOHN Q. C. SEARLE.
BASE-BURNING STOVES.



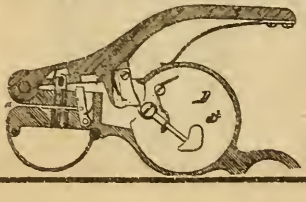
111,390. LOUIS SIEBERT.
JOHN WILSON LILLEY.
HEATERS FOR PAPER-RULING MACHINES



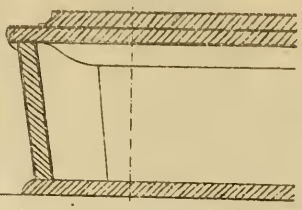
111,391. JOSEPH SINGER.
CULTIVATOR-PLOWS.



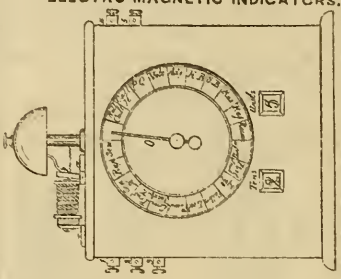
111,392 JAMES H. SMALL.
REGISTERING TICKET-PUNCHES.



111,393. E. T. SMITH. J. S. WINSTON.
BURIAL-CASKETS.

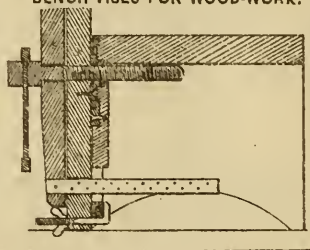


111,394. WESLEY D. SMITH.
ELECTRO-MAGNETIC INDICATORS.

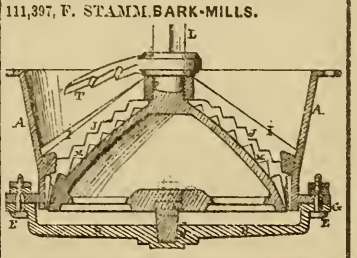


111,395. ANTONIO SOLARI.
COMPOSITIONS FOR FLOORS. PAVEMENTS, &c.

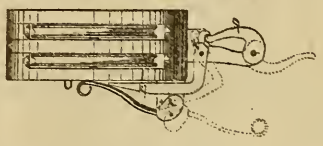
111,396. EDWIN SPRAGUE.
BENCH-VISES FOR WOOD-WORK.



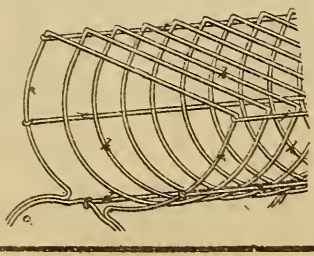
111,397. F. STAMM. BARK-MILLS.



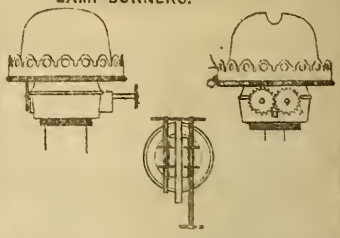
111,398 GEORGE STANCLIFF.
BOAT-DETACHING APPARATUS.



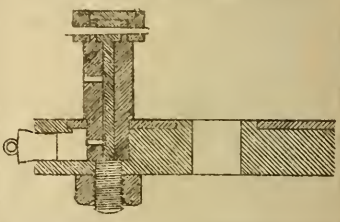
111,399. W. T. STOUTENBOROUGH.
HOLDERS FOR PLATES WHILE BEING WARMED.



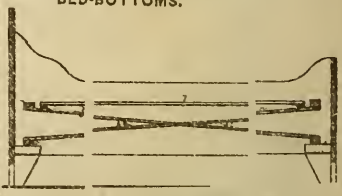
111,400. FREEMAN AUGUSTUS TABER.
LAMP-BURNERS.



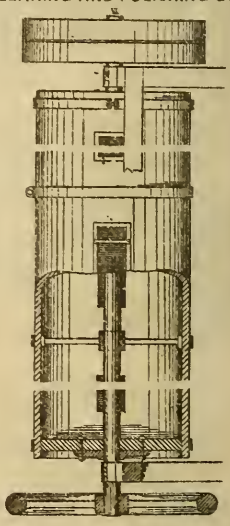
111,401. JOHN TENWICK. LUBRICATORS.



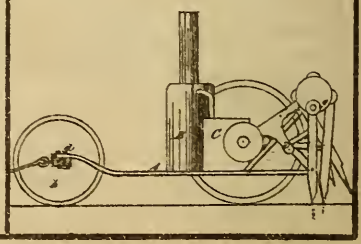
111,402. EDWIN C. THOMPSON.
BED-BOTTOMS.



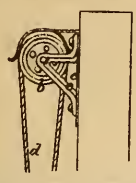
111,403. WILLIAM THOMPSON.
SAMUEL THOMPSON.
CLEANING AND POLISHING COFFEE



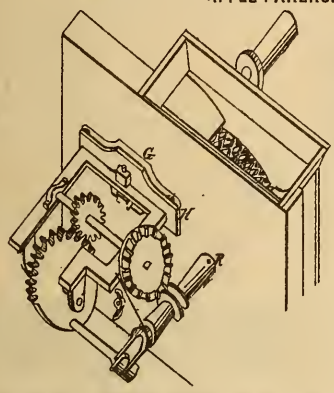
111,404. ISAAC P. TICE.
DIGGING-MACHINES.



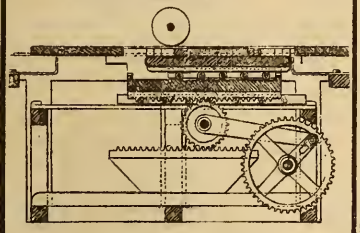
111,405, RICHD. VOSE.
CURTAIN-FIXTURES



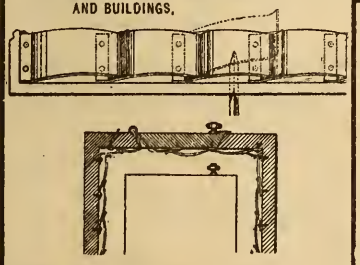
111,406, DEWITT C. WARNER.
COMBINED COFFEE-MILLS AND APPLE-PARERS.



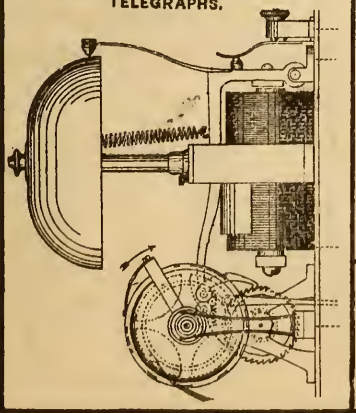
111,407, RICHARD C. WARWICK.
PRINTING-PRESSES.



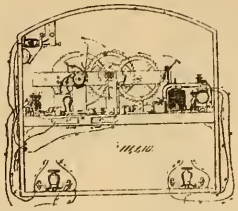
111,408, WILLIAM B. WATKINS.
TELEGRAPHIC PROTECTIONS FOR SAFES, VAULTS, AND BUILDINGS.



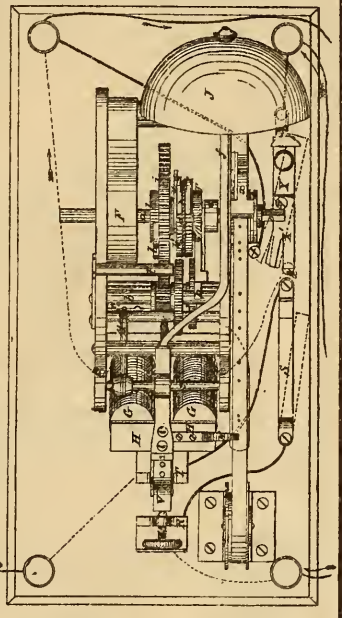
111,409, WILLIAM B. WATKINS.
BURGLAR-ALARM AND POLICE TELEGRAPHS.



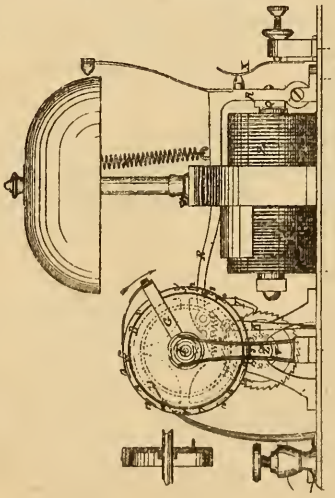
111,410, WILLIAM B. WATKINS.
FIRE-ALARM TELEGRAPHS.



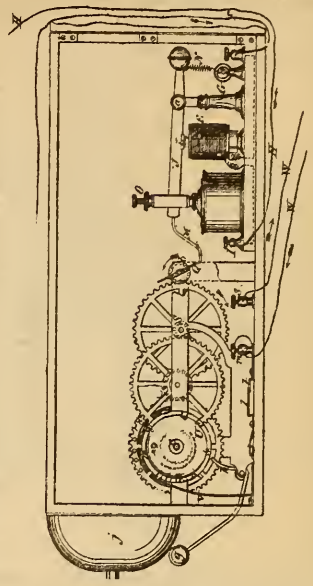
111,411, WILLIAM B. WATKINS.
FIRE-ALARM TELEGRAPHS.



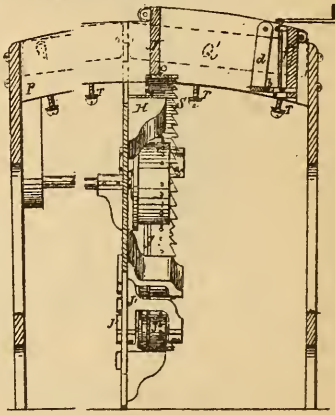
111,412, WILLIAM B. WATKINS.
FIRE-ALARM TELEGRAPHS.



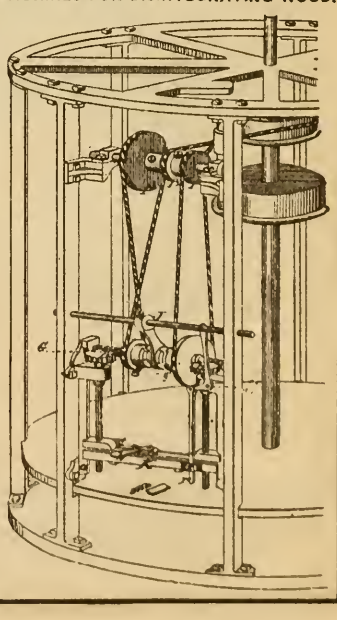
111,413, WILLIAM B. WATKINS.
FIRE-ALARM TELEGRAPHS.



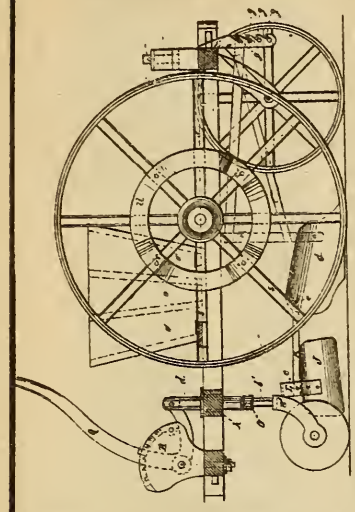
111,414, CHARLES THOMPSON WATSON.
STAVE-SAWING MACHINES.



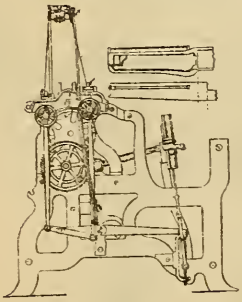
111,415, CHARLES WOLFF, SR.
CHARLES WOLFF, JR.
MACHINES FOR DISINTEGRATING WOOD.



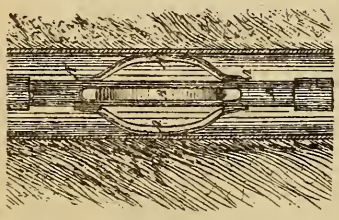
111,416 JOHN W. WOOD.
GABRIEL MOORE
CORN AND PHOSPHATE-DRILLS.



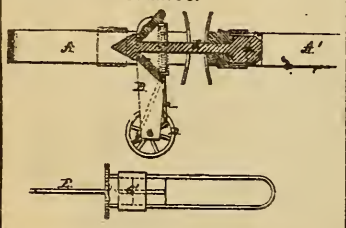
111,417. HORACE WYMAN.
BOX-OPERATING MECHANISMS FOR LOOMS.



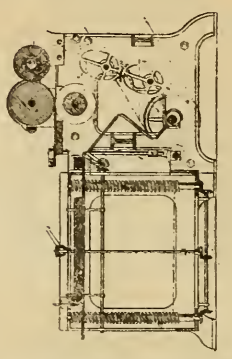
111,418. THOMAS ARNOLD.
TUBE-HOLDERS.



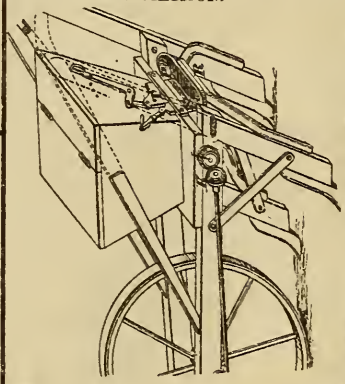
111,419. DAVID H. BALL.
CAR-COUPLINGS.



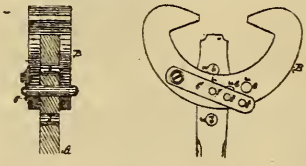
111,420. JAMES BALL.
ENVELOPE-MACHINES.



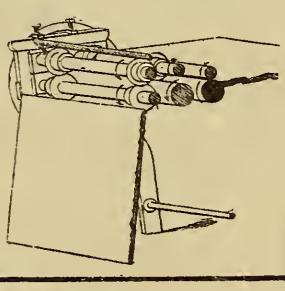
111,421. TURNER BARNS. GRAIN-DRILLS.
HUGH S. JAMISON.



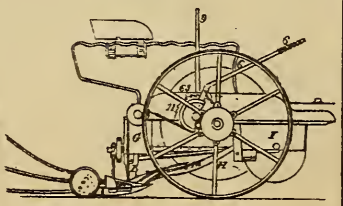
111,422. ORAMEL GRAVES BARRETT.
PIPE-WRENCHES.



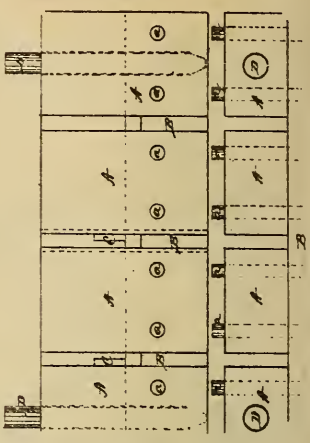
111,423. GEORGE BATES.
PAPER-CUTTING MACHINES.



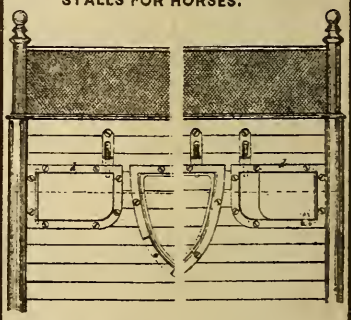
111,424 L. M. BATTY.
HARVESTERS.



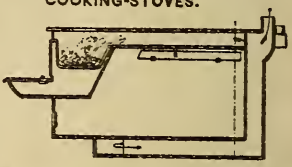
111,425. H. M. BEIDLER.
WOOD PAVEMENTS.



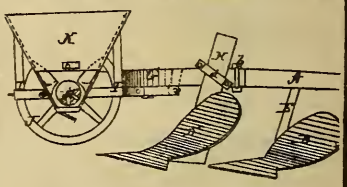
111,426, SAMUEL S. BENT.
STALLS FOR HORSES.



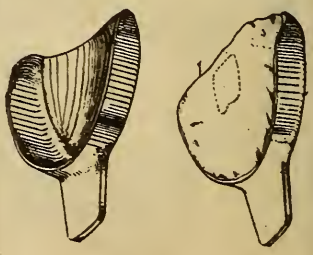
111,427, SAML. BLUE.
COOKING-STOVES.



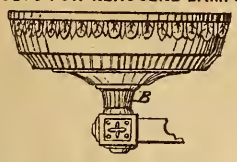
111,428. JOEL L. BOND.
COMBINED GANG AND SUBSOIL-PLOWS.



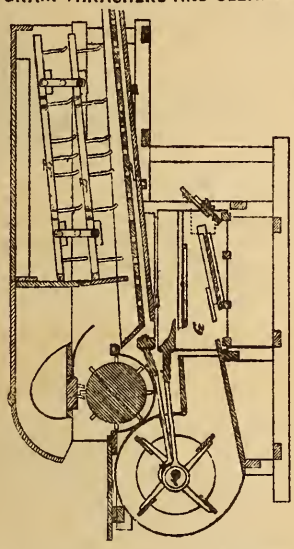
111,429 MARY A. BOUGHTON.
MODES OF FORMING THE AIR-CHAMBER IN DENTAL-PLATES.



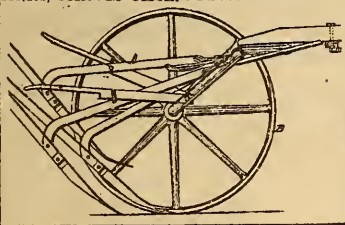
111,430. NATHANIEL L. BRADLEY.
CUPS FOR KEROSENE-LAMPS.



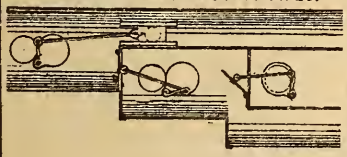
111,431. WILLIAM H. BUTTERWORTH.
JOHN BUTTERWORTH, JR.
GRAIN-THRASHERS AND CLEANERS.



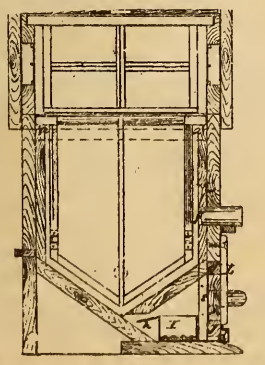
111,432, JARVIS CASE. CULTIVATORS.



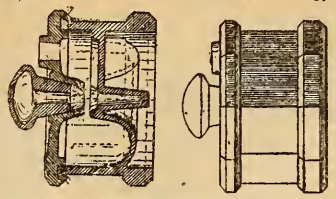
111,433. HORACE C. CREHORE.
HOT-AIR DISTRIBUTING-PIPES.



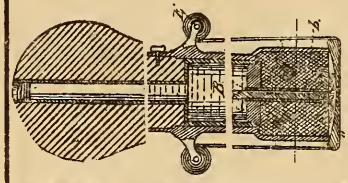
111,434. SAMUEL CUPLIN. BEE-HIVES.



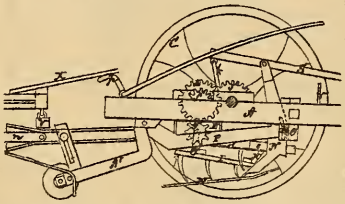
111,435 SAMUEL DARLING. INKSTANDS.



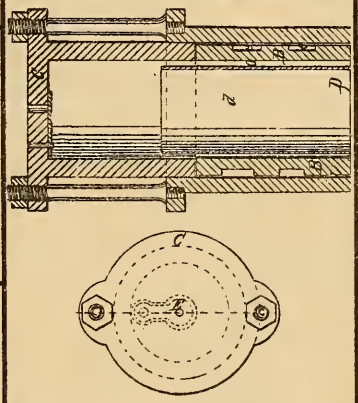
111,436 ARMISTEAD M. DARRELL.
BRANDING-STAMPS.



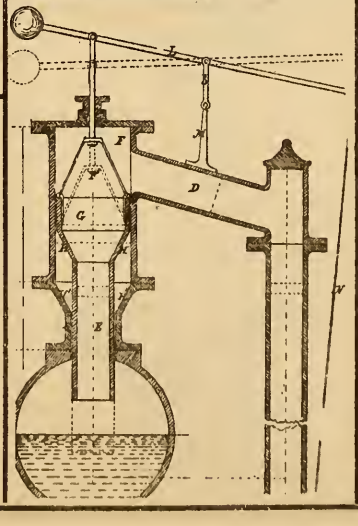
111,437, JAMES DAVIS. POTATO-DIGGERS.



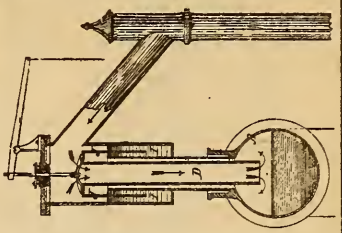
111,438, PATRICK S. DEVLAN.
COMBINED PNEUMATIC AND
RUBBER SPRINGS.



111,439 GRAFTON DOUTY.
SEALS FOR DIP-PIPES IN GAS-WORKS.

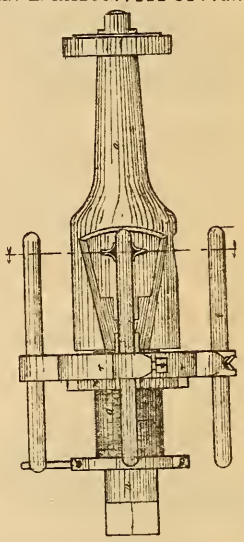


111,440. GRAFTON DOUTY.
SEALS FOR DIP-PIPES IN GAS-WORKS.



111,441. ELISHA DYER, JR
LUBRICATING-COMPOUNDS

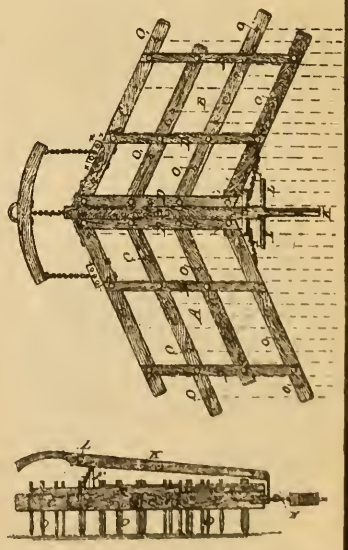
111,442. D. E. EATON. TUBE-CUTTERS.



111,443. JOHN N. FALLIS.
COMPOUNDS FOR DRESSING AND
COLORING THE HAIR.

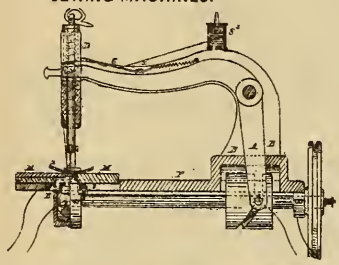
111,444 RASSELAS his × mark FARLEY.
TREATING COTTON-SEED OIL TO
RENDER IT DRYING.

111,445 AUGUST FRIEDEMANN.
HARROWS.

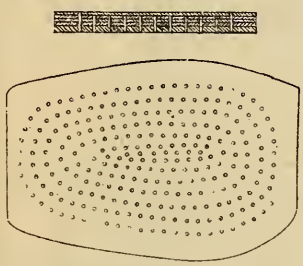


111,446. GEORGE B. GARMAN,
TEMPERING STEEL.

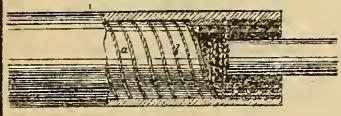
111,447. THOMAS GARRICK.
SEWING-MACHINES.



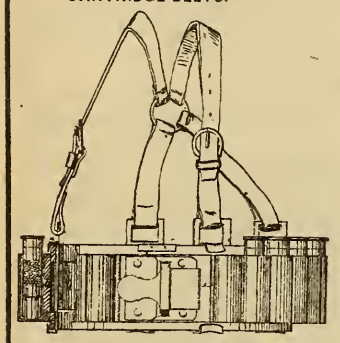
111,448. BENJ. D. GODFREY.
BOOT-AND-SHOE SOLES.



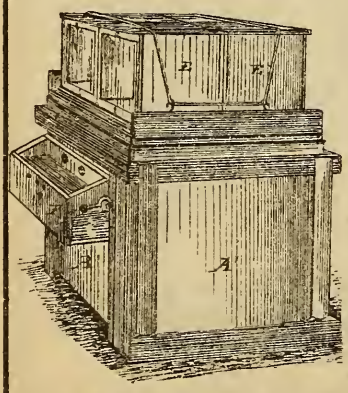
111,449. JOHN GREACEN, JR.
EDWARD L. PERRY.
RUBBER ROLLS.



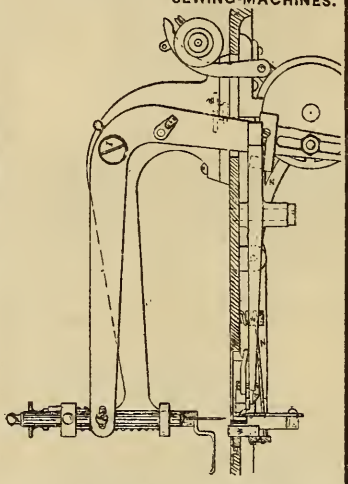
111,450 WILLIAM B. HAYDEN.
CARTRIDGE-BELTS.



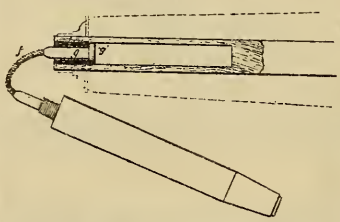
111,451. JOHN H. HENDRICK. **BEE-HIVES**



111,452, W. B. HIGGINS.
FEEDING MECHANISMS FOR SEWING-MACHINES.

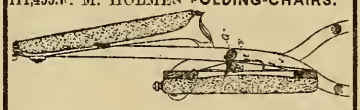


111,453. MASON HIRSH. **UMBRELLAS.**
LEOPOLD HIRSH.

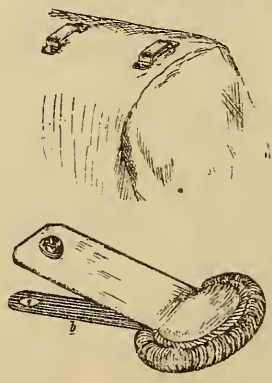


111,454, ISAAC C. McDONALD.
JAS. HOAGLAND.
MANUFACTURE OF SOAP.

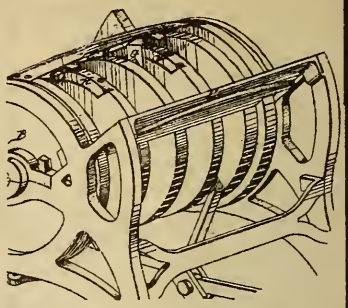
111,455. F. M. HOLMES **FOLDING-CHAIRS.**



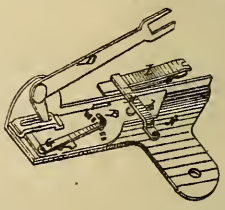
111,456. WM. J. HORSTMANN.
FASTENINGS FOR EPAULETTES.



111,457, A. J. HOWELL.
JAMES MURPHY.
MACHINES FOR CUTTING STAVES.

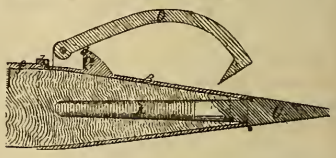


111,458. ALLEN JOHNSTON.
WILLIAM T. JOHNSTON.
GATHERING ATTACHMENTS FOR SEWING-MACHINES.

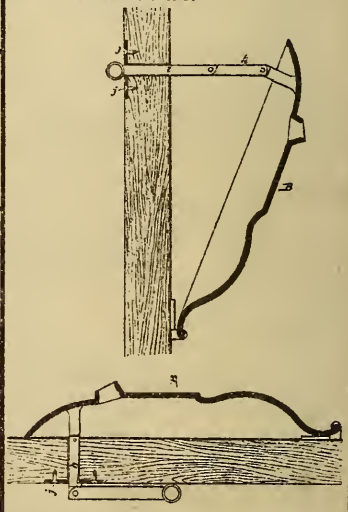


111,459. CHARLES T. KEMMER.
COATING AND DECORATING WALLS, CEILINGS, &c.

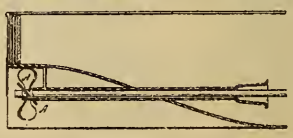
111,460. AMOS KENNARD. **CANT-HOOKS.**



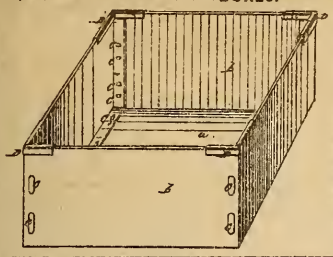
111,461. CYRUS LEVIS.
LETTER-BOXES.



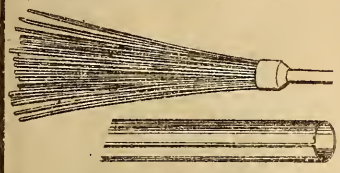
111,462, THOMAS MAIN.
PROPULSION OF CANAL-BOATS.



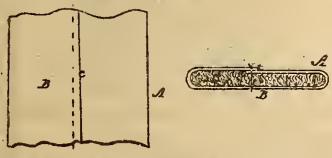
111,463, HENRY MANNECK. BOXES.



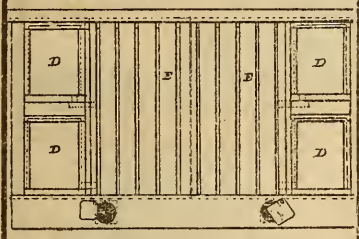
111,464, EZRA P. MARBLE. BROOMS.



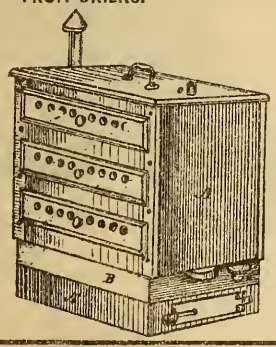
111,465, JOHN C. MAYALL. CARPET-LININGS.



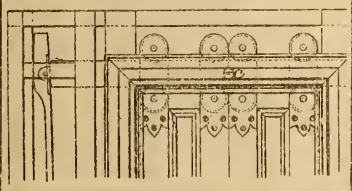
111,466, JOHN ARMSTRONG McANULTY. BEE-HIVES.



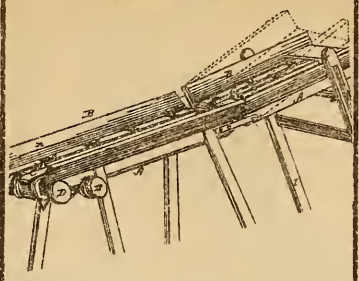
111,467, JOHN V. R. MILLER. FRUIT-DRIERS.



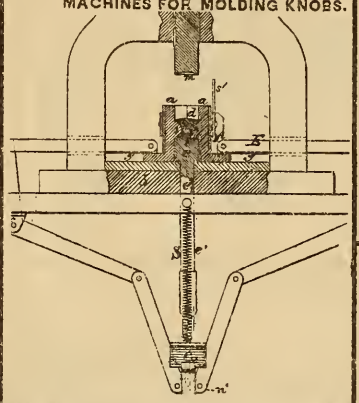
111,468, JOHN MORE. SLIDING-DOORS.



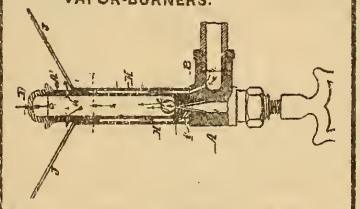
111,469, SAMUEL C. MYERS. JAMES McCAULEY. COMBINED BAND-CUTTERS AND FEEDERS FOR THRASHING-MACHINES



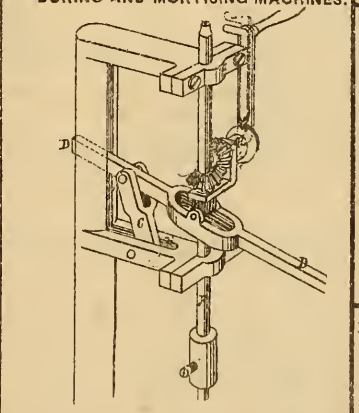
111,470, CHARLES H. PALMER. MACHINES FOR MOLDING KNOBS.



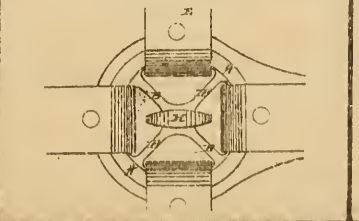
111,471, ROBERT W. PARK. VAPOR-BURNERS.



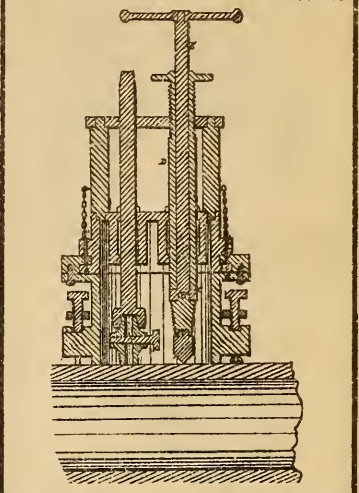
111,472, JACOB PETERS. BORING AND MORTISING-MACHINES.



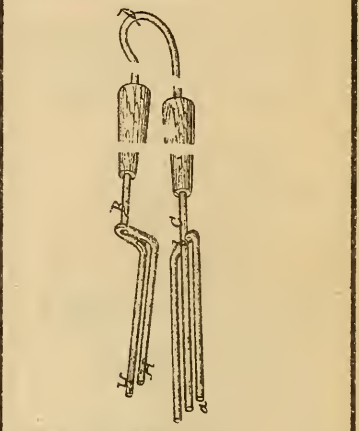
111,473, ROBERT PORTER. TRACE-CARRIERS.



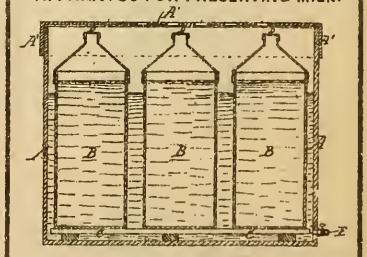
111,474, JAMES RILEY. PATRICK RILEY. MACHINES FOR DRILLING AND TAPPING WATER AND GAS-MAINS.



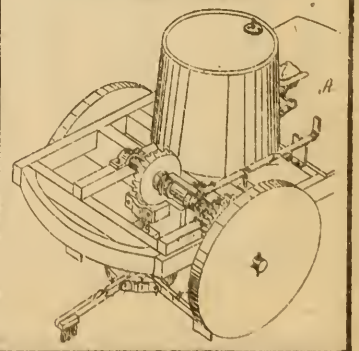
111,475, JACOB C. ROBIE. FLUTING-TONGS.



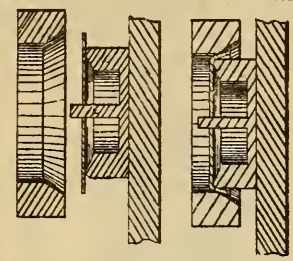
111,476, EVEN RÖNNING. APPARATUS FOR PRESERVING MILK.



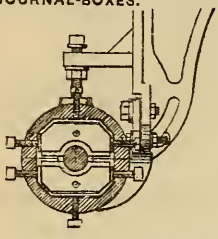
111,477, E. A. G. ROULSTONE. STREET-SWEEPING MACHINES.



111,478. W. B. SCAIFE.
METHODS OF FLANGING BOILER-HEADS.

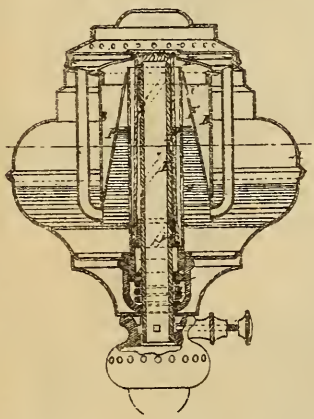


111,479. JOHN SCHIEDER.
JOURNAL-BOXES.

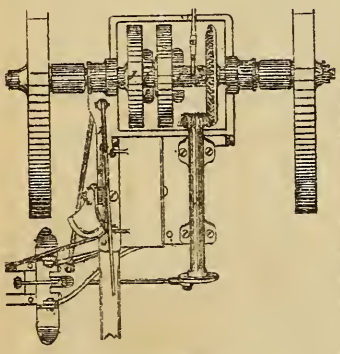


111,480. JOHN J. SCHILLINGER.
CONCRETE BLOCKS FOR PAVING.

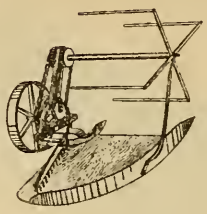
111,481. H. A. SCHOTTKY.
THEODORE SIMENDINGER.
LAMPS.



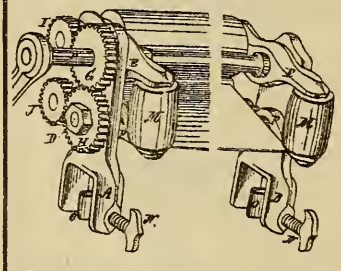
111,482. JACOBS W. SCHUCKERS
HARVESTERS.



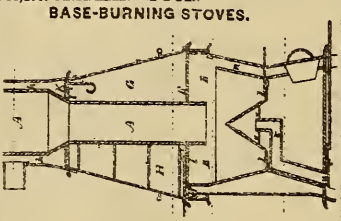
111,483. WILLIAM H. SEYMOUR.
HARVESTER-REELS AND RAKES.



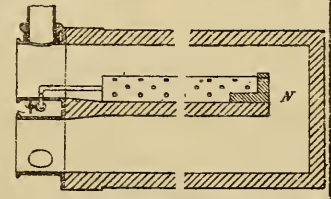
111,484. ALBERT H. SPENCER.
WRINGING-MACHINES.



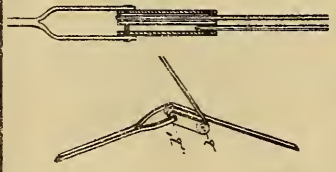
111,485. STEPHEN SPOOR.
BASE-BURNING STOVES.



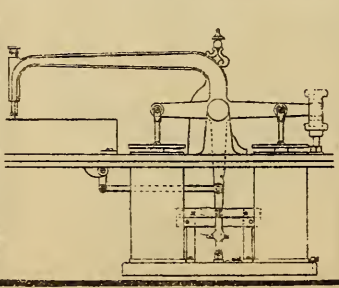
111,486. IRA N. STANLEY.
MANUFACTURE OF ILLUMINATING-GAS.



111,487. N. STARR. UMBRELLAS.

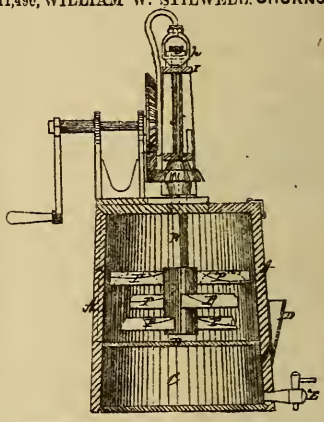


111,488. GEORGE STEVENS.
JOSHUA HENDY.
ELECTRO-MAGNETIC SEWING-MACH'NES.



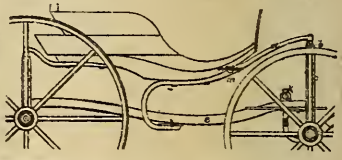
111,489. GEORGE D. STEVENS.
GUARD-CHAINS FOR BRACELETS.

111,490. WILLIAM W. STILWELL. CHURNS.

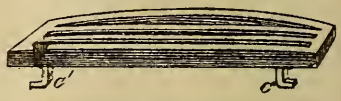


111,491. CHAUNCEY THOMAS.
CARRIAGE-BODIES.

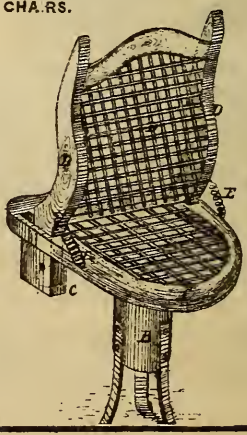
111,492. CHAUNCEY THOMAS. VEHICLES.



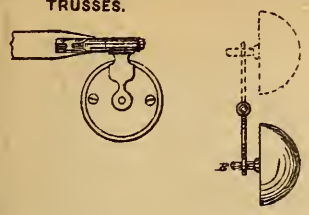
111,493. WILLIAM S. THOMAS.
STOVE-GRATES.



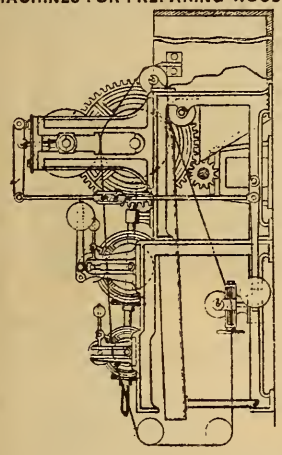
111,494. CYRUS TUCKER.
CHA.RS.



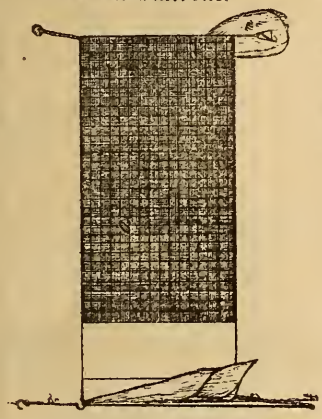
111,495, CORNELIUS C. E. VAN ALSTINE.
TRUSSES.



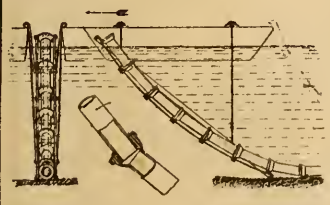
111,496, M. WAISSNIX.
ALOIS WAISSNIX.
CARL A. SPECKER.
MACHINES FOR PREPARING WOOD PULP



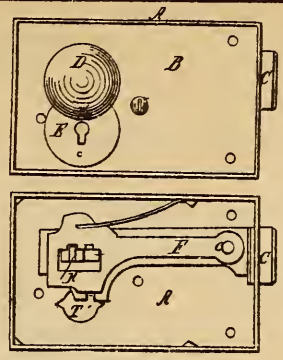
111,497, AMASA K. WALKER
FLY-EXTERMINATORS.



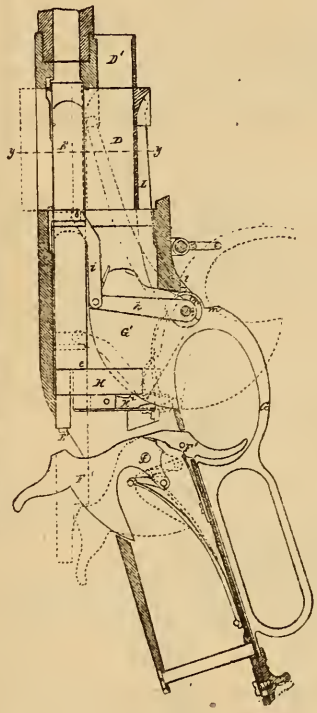
111,498, JOHN F. WARD.
MODES OF LAYING PIPES ACROSS RIVERS.



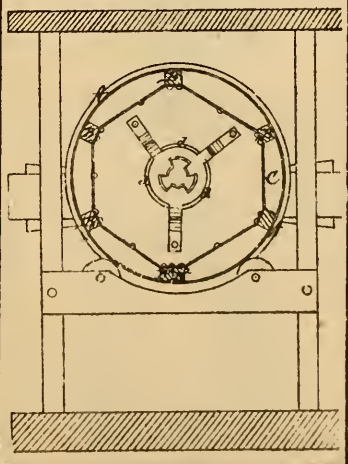
111,499, JOHN WELSH.
DOOR-LOCKS.



111,500, LUKE WHEELOCK
REPEATING FIRE-ARMS.



111,501, BENJAMIN CLAYTON WHITE
BOLT-REELS.



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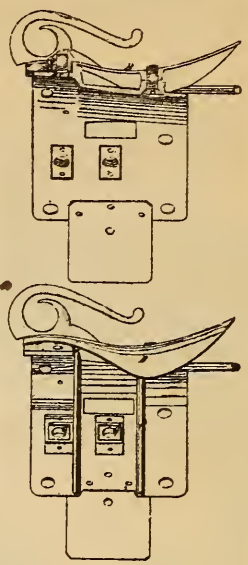
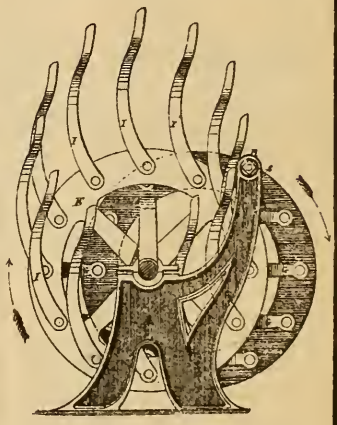
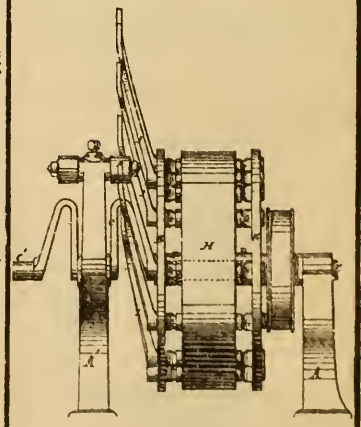
HARNESS SADDLE-TREES.

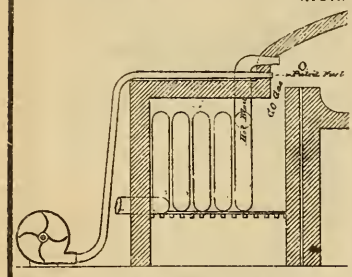


111,503, JACOB WOOLF.
MECHANICAL MOVEMENTS.

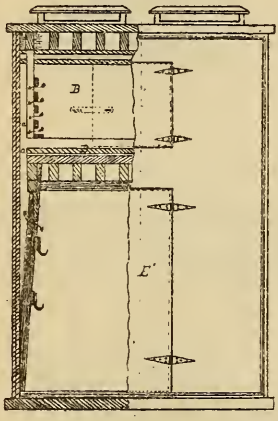


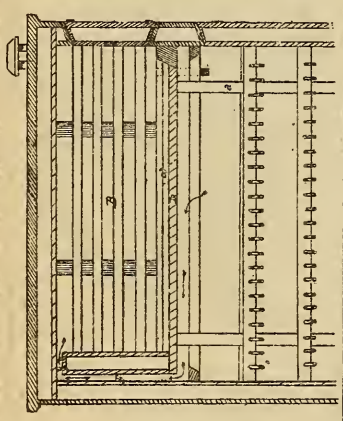


111,504. JAMES D. WHELPLEY.
JACOB J. STORER.
MANUFACTURE OF STEEL, STEELY IRON, AND HOMOGENEOUS OR CRYSTALLINE IRON.



4,242. JOSEPH HYDE FISHER.
REFRIGERATORS.

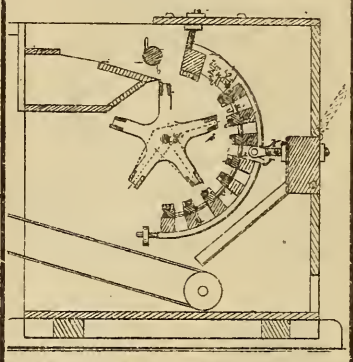




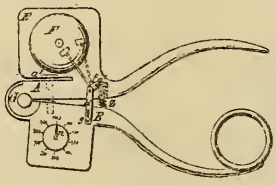
4,243. JAMES B. FORSYTH.
RUBBER ROLLS FOR CLOTHES-WRINGERS.

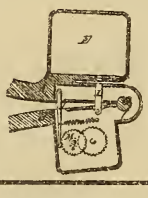
4,244. JAMES B. FORSYTH.
MANUFACTURE OF INDIA-RUBBER ROLLERS.

4,245. HUGH HANNA.
THRASHING-MACHINES.

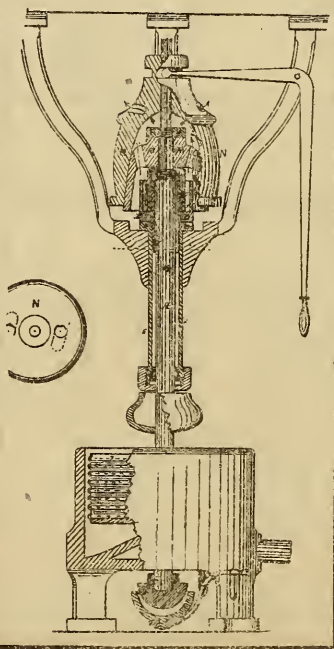


4,246. AUSTIN D. HOFFMAN.
REGISTERING TICKET-PUNCHES.

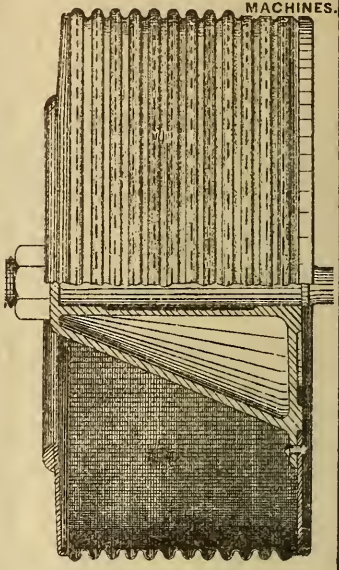




4,247. H. W. LAFFERTY.
ROBERT LAFFERTY.
CENTRIFUGAL SUGAR-DRAINING MACHINES.

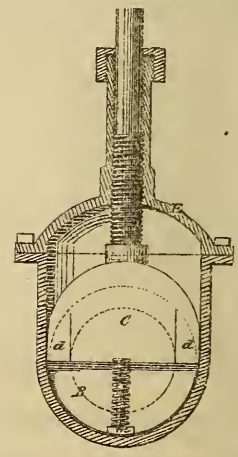


4,248. HUGH W. LAFFERTY.
ROBERT LAFFERTY.
CENTRIFUGAL SUGAR-DRAINING MACHINES.

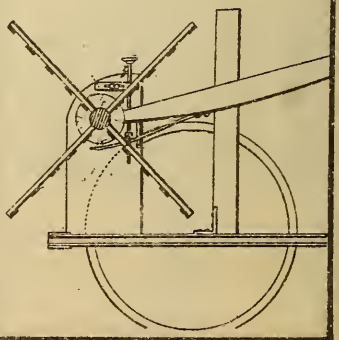


4,249. MARTIN LANDENBERGER.
DESIGN FOR A SHAWL.

4,250. HENRY G. LUDLOW, 2D.
SLIDING STOP-VALVES.



4,251. HENRY WATERMAN.
HARVESTERS.



ILLUSTRATIONS OF PATENTS

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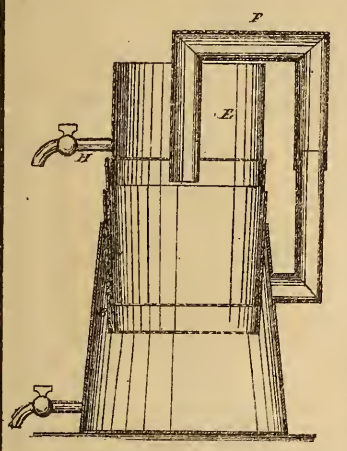
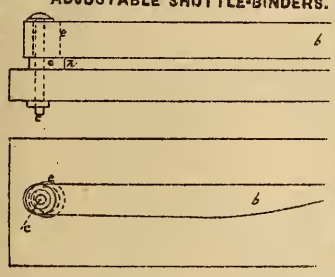
FEB. 7, 1871.

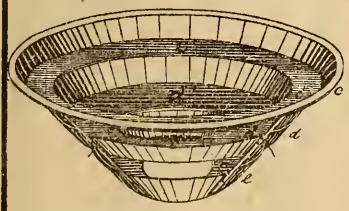
111,505, N. AGNEW. COFFEE-POTS.



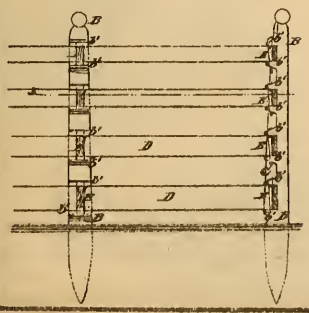
111,506. NICHOLAS J. ALLEN.
JAMES C. MOODY.
ADJUSTABLE SHUTTLE-BINDERS.



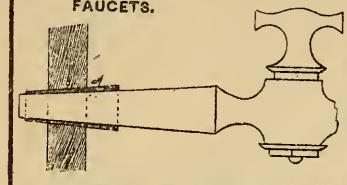
111,507, THOMAS A. ANDREWS, JR
SPARK-ARRESTERS.



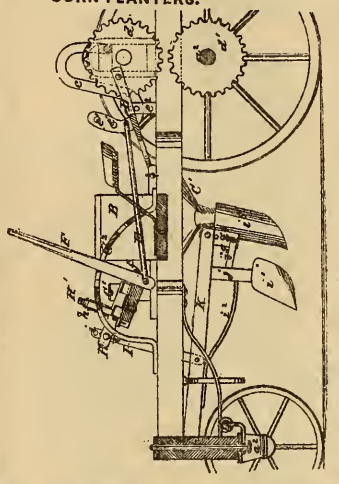
111,508. HUGH M. BARBER.
FENCES.



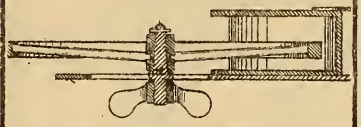
111,509, THOS. W. BARTHOLOMEW.
FAUCETS.



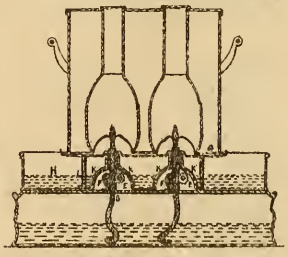
111,510 LEANDER BECKER.
CORN-PLANTERS.



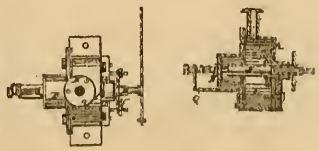
111,511, PRISCUS E. BOMBY.
APPARATUS FOR OILING FELLIES, SPOKES, &c.



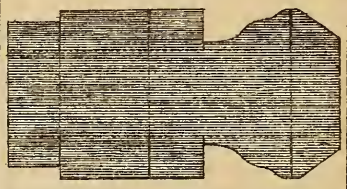
111,512, JOHN BOWLES.
LAMPS FOR COAL-OIL STOVES.



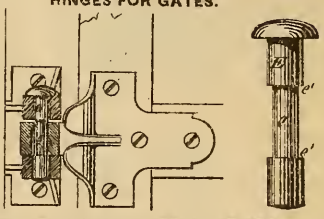
111,513. JOHN O. BROMLEY.
OSCILLATING BALANCE STEAM-VALVES.



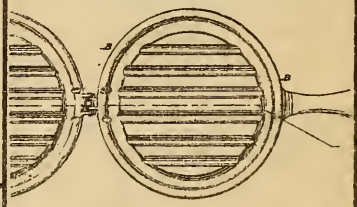
111,514. LEE CHURCHILL.
PAPER-COLLAR BOXES.



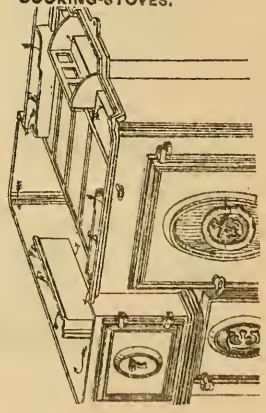
111,515. CHARLES B. CLARK.
HINGES FOR GATES.



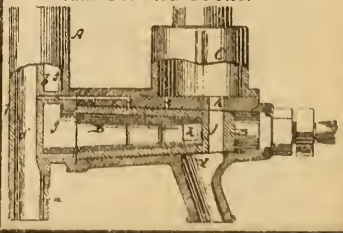
111,516, LEVI H. COLBORNE. BROILERS.
DAVID H. LOWE.



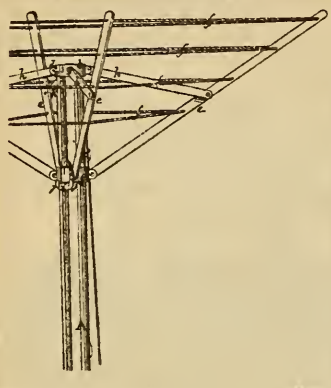
111,517 JOHN B. CROWLEY.
ADDIS E. CHAMBERLAIN.
COOKING-STOVES.



111,518, WILLIAM DALZIEL.
SELF-CLOSING COCKS.

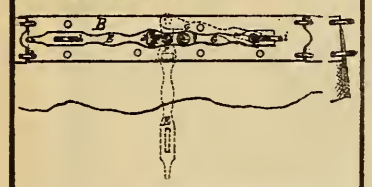


111,519 ALFRED DAY. CLOTHES-DRIERS.



111,520. E. J. DE SMEDT.
ASPHALT CEMENT FOR PAVEMENTS. DRAIN-PIPES. &c.

111,521, D. FRANKLIN DODGE.
MAIL-BAG FASTENINGS.



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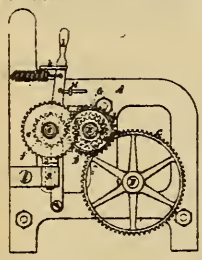
CARRIAGE-CURTAIN KNOBS.

111,523. GEORGE DRAPER.
MACHINES FOR WARPING YARN.



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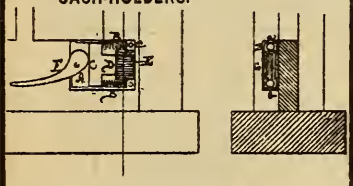
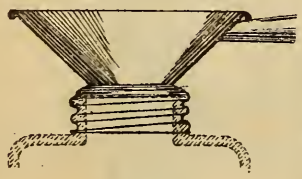
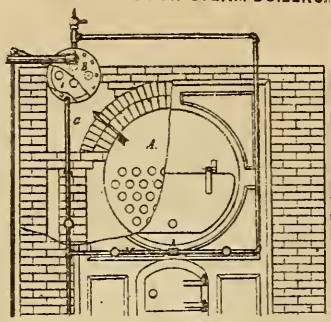
SASH-HOLDERS.



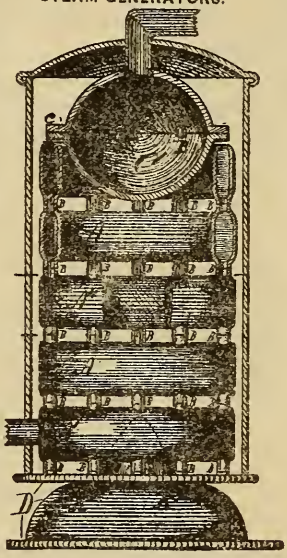
111,525. LESTER P. EDWARDS.
FUNNELS.



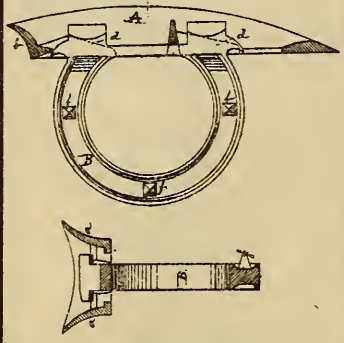
111,526. DAVID C. G. FIELD.
WATER-HEATERS FOR STEAM-BOILERS.



111,527. LOYAL C. FIELD.
STEAM-GENERATORS.



111,528, SEBASTIAN GOETZ.
BEDSTEAD-FASTENINGS.



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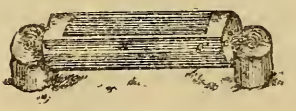
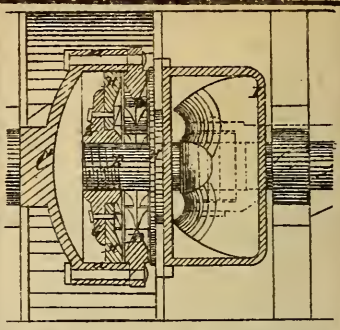
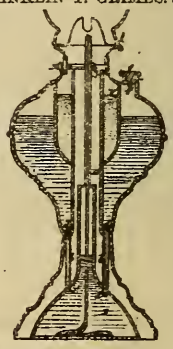
INVERTIBLE TROUGHS.



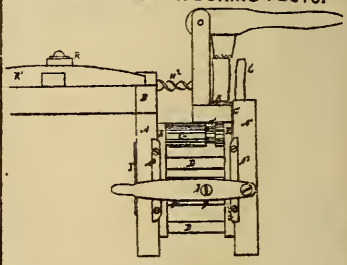
111,530, MYRON GORE.
FEED-GRINDERS.



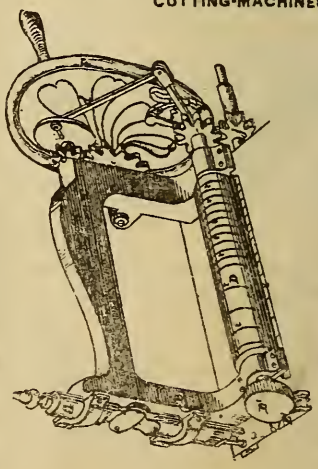
111,531, FRANKLIN T. GRIMES. LAMPS



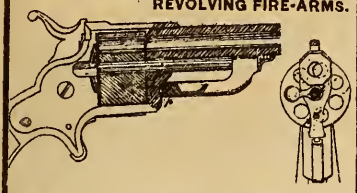
111,532. JESSE R. GROUP.
MACHINES FOR BORING POSTS.



111,533, EMERY E. HARDY.
NAPOLEON DUBREUL.
LEATHER-PUNCHING AND CUTTING-MACHINES.

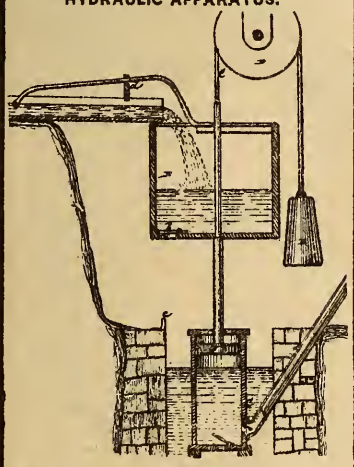


111,534. GILBERT H. HARRINGTON.
CARTRIDGE-SHELL EJECTORS FOR REVOLVING FIRE-ARMS.

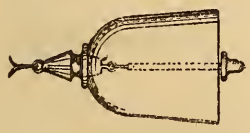


111,535. HENRY F. HERKNER.
JARED W. POST.
WATER-PROOF PIANO-COVERS.

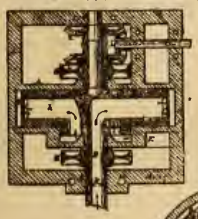
111,536. GEO. H. HERRING.
HYDRAULIC APPARATUS.



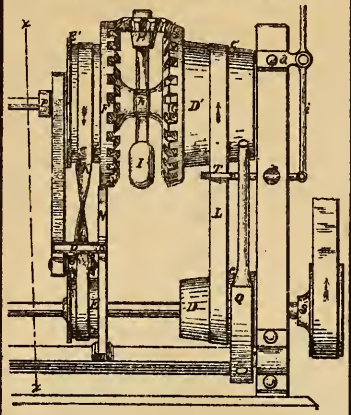
111,537. HEINRICH HERRMANN.
ÆOLIAN CHIMING-BELLS.



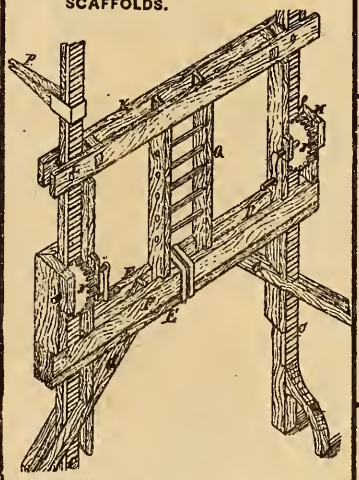
111,538. JAMES P. HERRON.
DOUBLE-ACTING ROTARY ENGINES.



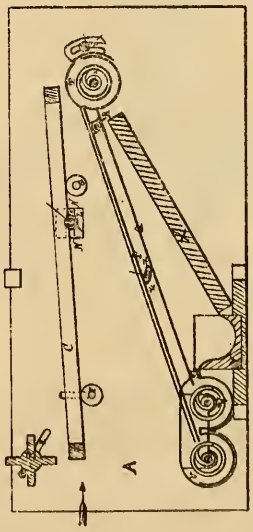
111,539. SPENCER HIATT.
APPARATUS FOR TRANSMITTING POWER AND CHANGING THE SPEED.



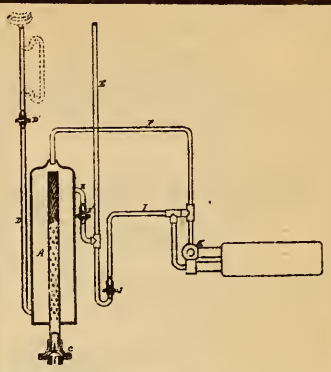
111,540. SAMUEL HOLLABAUGH.
THOMAS W. LETTS.
SCAFFOLDS.



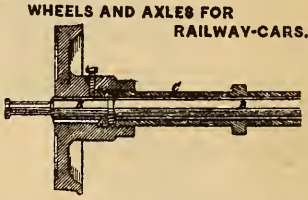
111,541. D. W. HOLLIHAN.
SHOES FOR THRASHERS.



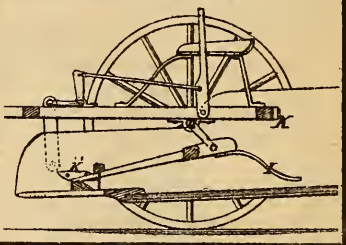
111,542. CHS. HOUGHTON.
AUTOMATIC STEAM WATER-ELEVATORS



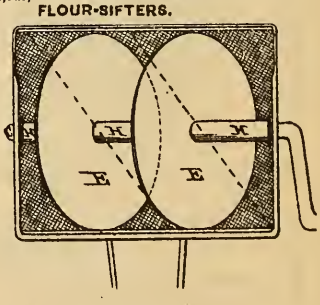
111,543. WESCOM HUDGIN, M. D.
WHEELS AND AXLES FOR RAILWAY-CARS.



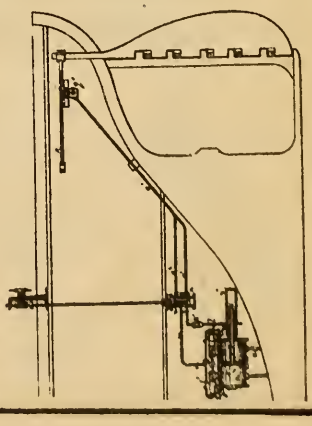
111,544. JOHN W. HULL.
ALBERT G. STIFFLER.
CLOVER-HARVESTERS.



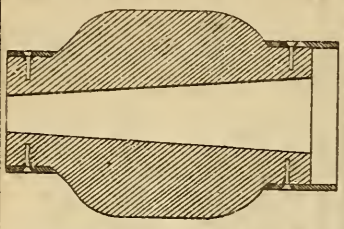
111,545. CURTIS HUNTLEY.
FLOUR-SIFTERS.



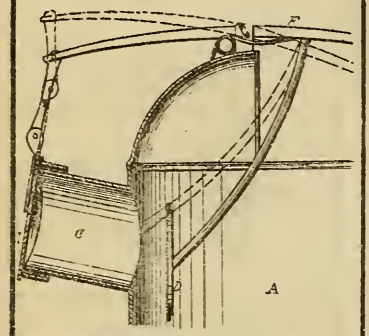
111,546. E. A. INGLEFIELD.
STEERING APPARATUS.



111,547. JAMES IVES.
MODES OF FASTENING HUB-BANDS, &c.

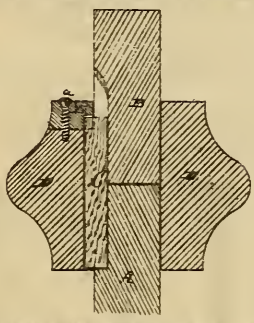


111,548. EDWIN A. JEFFERY.
BATTER-POTS.



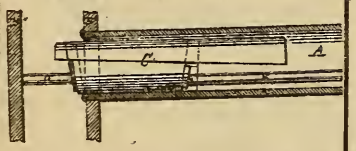
111,549, H. W. JOSLIN.
MANUFACTURE OF RUBBER FLOOR-CLOTHS, &c.

111,550. WILLIAM KEAN.
COUPLINGS FOR SHAFTS FOR MILLS.

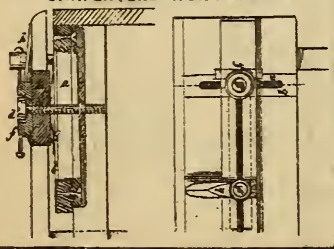


111,551. EDWARD G. KEARSING.
LEONZO KEARSING.
PREPARATION OF PLATINUM FOR FILLING TEETH.

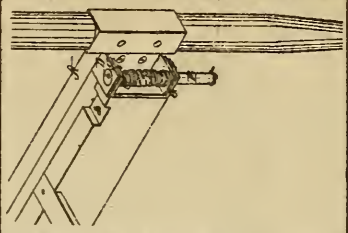
111,552, THOMAS LA BLANC.
BOILER-TUBE PLUGS.



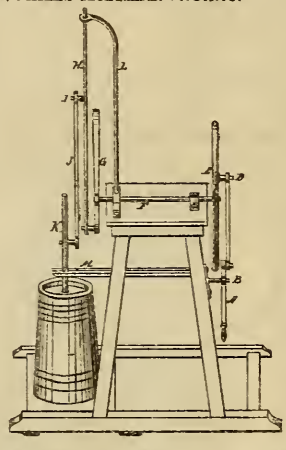
111,553. ROBERT C. LOVE.
CARPENTERS' WORK-BENCHES.



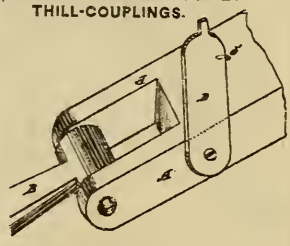
111,554. NICHOLAS MASON. SPRING-BEDS.



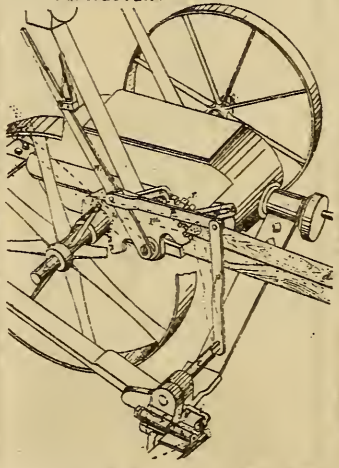
111,555, JAMES McBRIDE. CHURNS.



111,556 WM. B. MELONEY, M. D.
THILL-COUPLINGS.

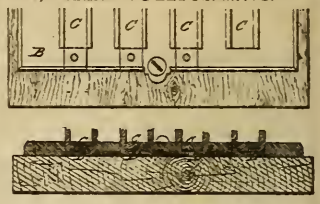


111,557. JAMES MORAN.
CASPER D. WALLACE.
HARVESTERS.

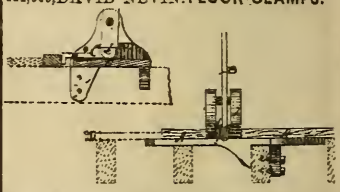


111,558. EDMUND A. MORSE.
TONGUES FOR CHILDREN'S CARRIAGES.

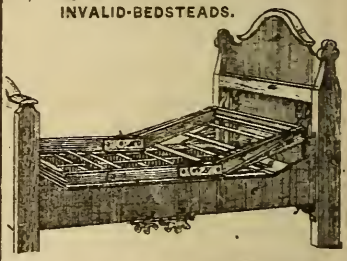
111,559, PETER W. NEEFUS. MATS.



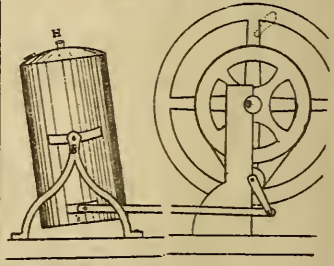
111,560, DAVID NEVIN. FLOOR-CLAMPS.



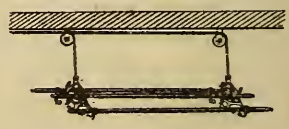
111,561. JOHN H. OERTER.
INVALID-BEDSTEADS.



111,562. W. PARKS. CHURNS.



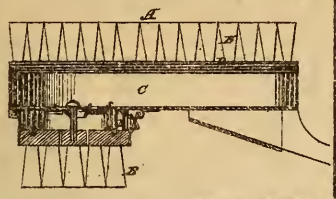
111,563, ASAHEL H. PATCH.
CLOTHES-DRIERS.



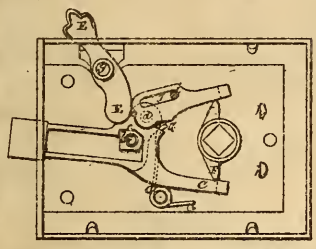
111,564, WILLIAM W. PATTERSON
EDMOND BISHOP.
RATCHET-COUPLINGS FOR BARGES, &c.

111,565, B. F. PENNY.
ARTIFICIAL FUEL.

111,566, ALBERT D. PENTZ.
FOUNTAIN BLACKING-BRUSHES.

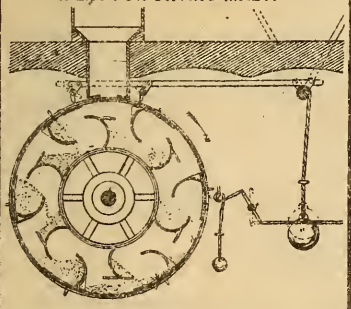


111,567, N. PETRÉ. LATCH-LOCKS.

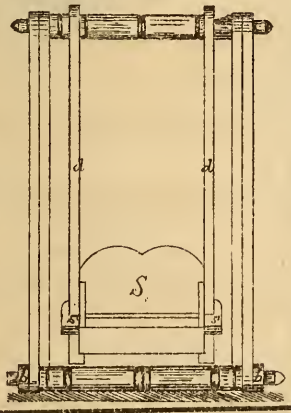


111,568, ALVIN DAVIS PUFFER.
WINE-SIRUPS AND BEVERAGES.

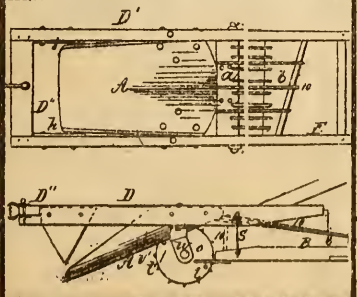
111,569, JNO. AUG. REMER.
KILNS FOR DRYING MALT.



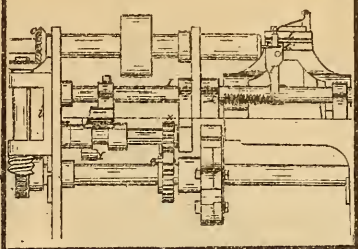
111,570, DANIEL M. REYNOLDS.
PORTABLE SWINGS.



111,571, R. B. ROBBINS. POTATO-DIGGERS.

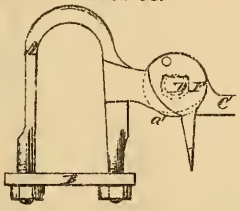


111,572, DANIEL M. ROBERTSON.
JASON A. BIDWELL.
MACHINES FOR THREADING SCREWS.

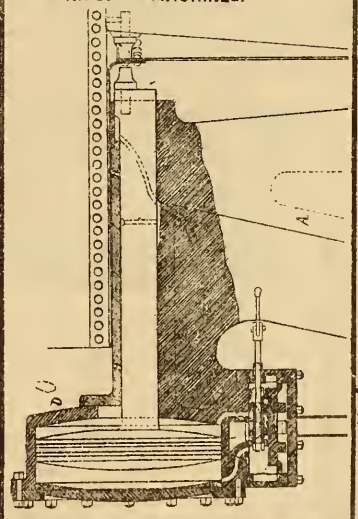


111,573, WILLIAM HENRY RODDEN.
FERRULES.

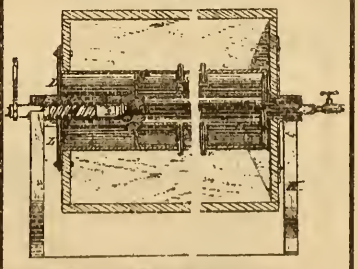
111,574, LEWIS S. ROWE.
THILL-COUPLINGS.



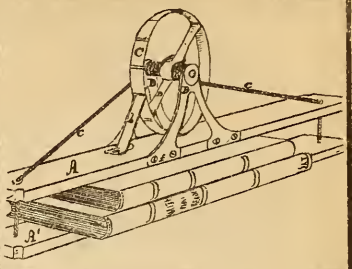
111,575, WM. SELLERS.
RIVETING-MACHINES.



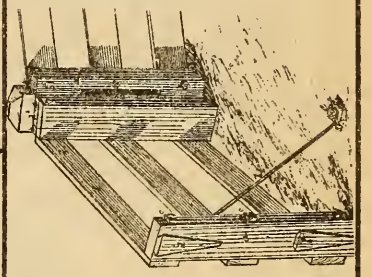
111,576, JAMES T. SHELDON.
FEATHER-RENOVATORS.



111,577, CALVIN W. SHERWOOD.
PORTABLE BOOK-HOLDERS.

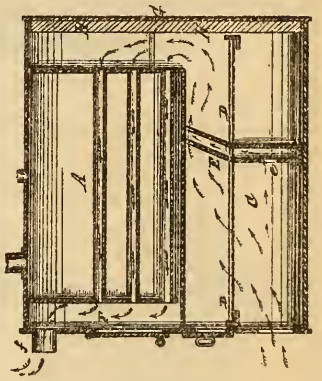


111,578, HECTOR SINCLAIR.
PORTABLE FENCES.

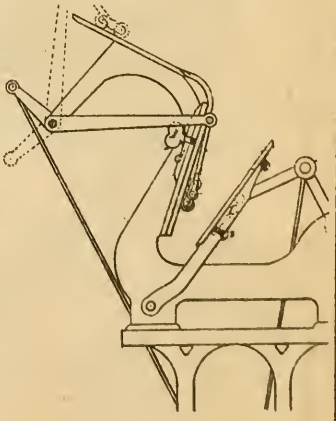


111,579, JASPER H. SINGER.
PAPER FOR USE IN THE BOTTOMS OF BIRD-CAGES.

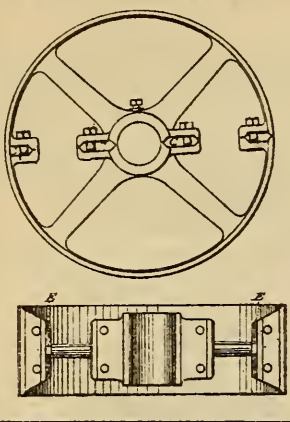
111,580, L. G. SKINNER.
BOILER-FURNACES.



111,581, EARLE H. SMITH.
PRINTING-PRESSES.

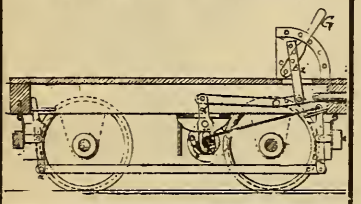


111,582, SCOTT A. SMITH. PULLEYS.

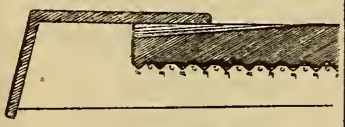


111,583, WILLIAM C. STONE. TANNING.

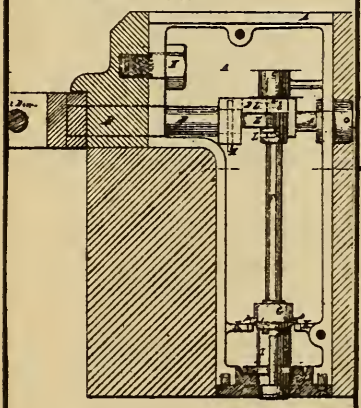
111,584, CHARLES W. TIERNEY.
BRAKES FOR RAILWAY-CARS



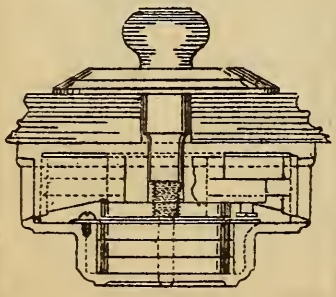
111,585, WESTLY TODD. WASH-BOARDS.



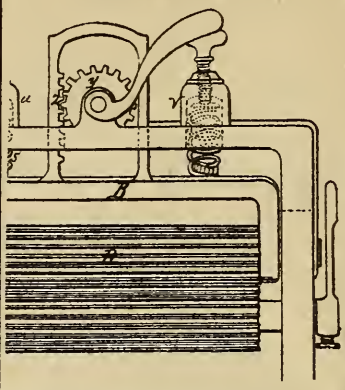
111,586 HENRY R. TOWNE.
PRISON-LOCKS.



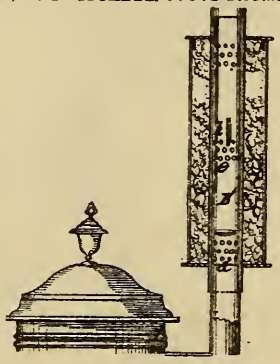
111,587 HENRY R. TOWNE
PERMUTATION-LOCKS.



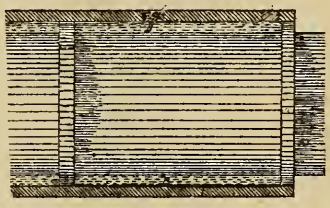
111,588, THEODORE M. TUCKER
FLUTING-MACHINES.



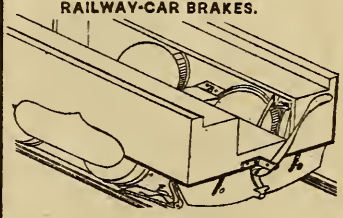
111,589, W. TWITCHELL. STOVE-DRUMS.



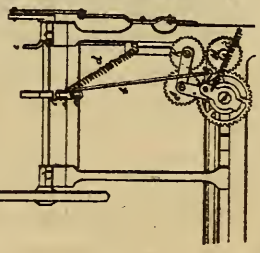
111,590, STEPHEN USTICK.
LUBRICATORS FOR LOOSE PULLEYS.



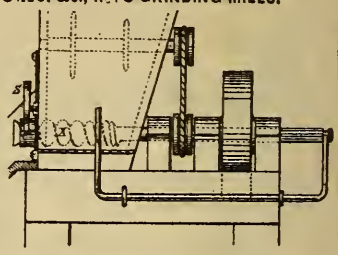
111,591. JOHN E. WEAVER.
RAILWAY-CAR BRAKES.



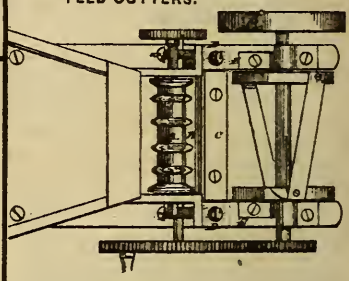
111,592, CHRISTOPHER WENTZ.
ALBERT GREEN.
ORLANDO P. CONNER.
CANDY-CUTTING MACHINES.



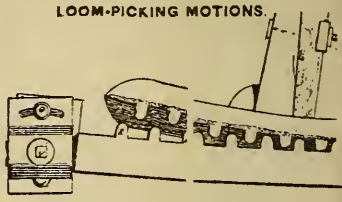
111,593, JAMES D. WHELPLEY.
JACOB J. STORER.
APPARATUS FOR DELIVERING GRAIN, ORES, &c., INTO GRINDING-MILLS.



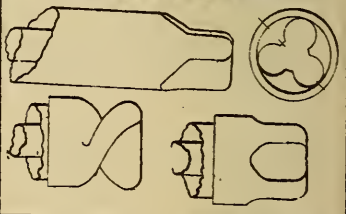
111,594, JOHN R. WHITTEMORE.
FEED-CUTTERS.



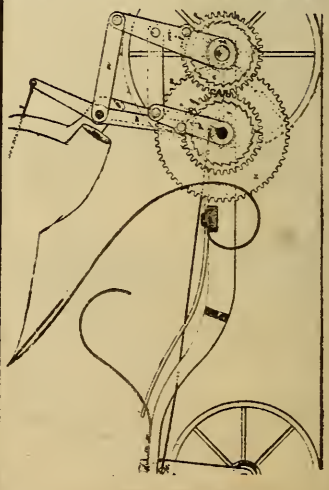
111,595, HENRY A. WHITTEN.
ELIJAH D. GOVE.
LOOM-PICKING MOTIONS.



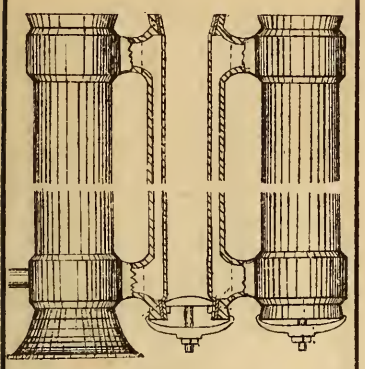
111,596, S. LLOYD WIEGAND.
DROP-TUBE STEAM-GENERATORS.



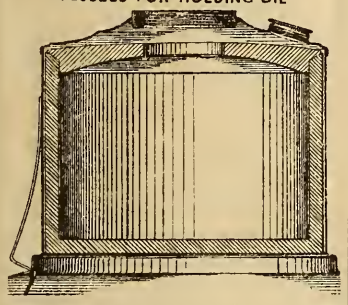
111,597, W. L. WILLIAMS. VELOCIPEDES.



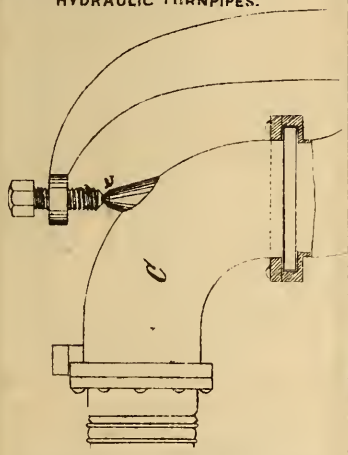
111,598. JOSEPH L. WINSLOW.
STEAM-HEATERS.



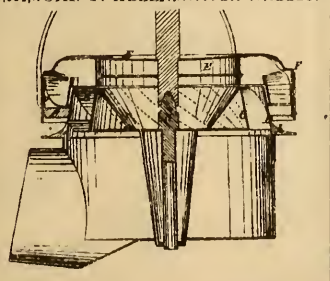
111,599. ARTHUR T. WOODWARD
VESSELS FOR HOLDING OIL



111,600. SAMUEL ADAMS
HYDRAULIC TURNPIPES.

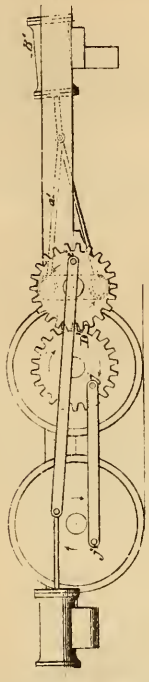


111,601. JOHN P. ALLEN. WATER-WHEELS.

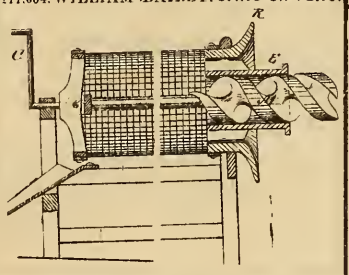


111,602. EDWARD E. ALVORD.
COATING BRICK, WOOD, AND OTHER SURFACES ON WALLS, &c.

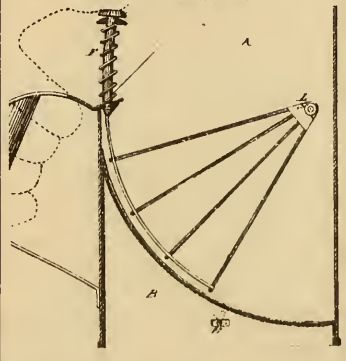
111,603. WILLIAM D. ARNETT.
DRIVING-POWER FOR LOCOMOTIVES.



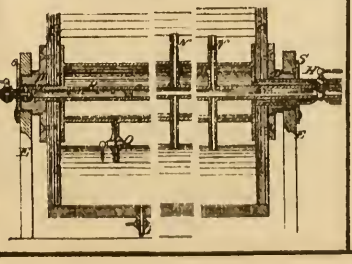
111,604. WILLIAM BAILEY. SAND-SIFTERS.



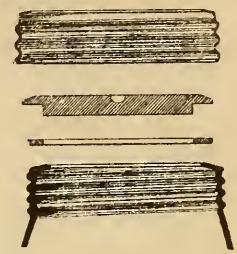
111,605. JOSEPH BAKER.
SCOOPS AND SIFTERS.



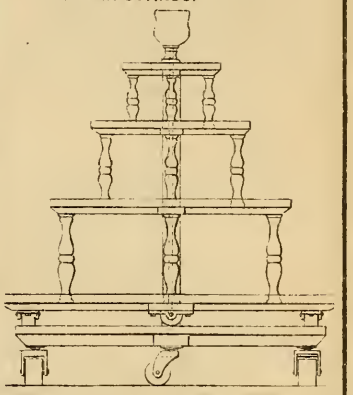
111,606. JAMES A. BELL.
FEATHER RENOVATORS.



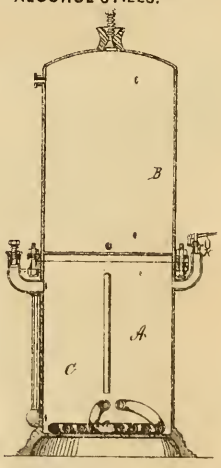
111,607. MELVILLE R. BISSELL.
FRUIT-JARS.



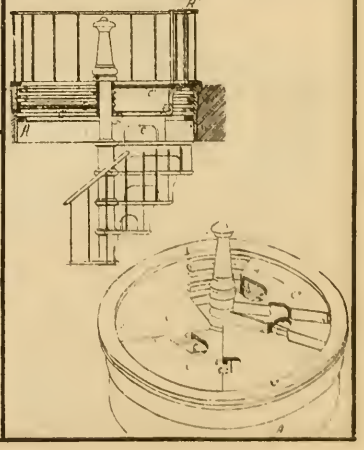
111,608. ELIJAH D. CASTELOW
FLOWER-STANDS.



111,609. GEORGE CLARKSON.
ALCOHOL-STILLS.

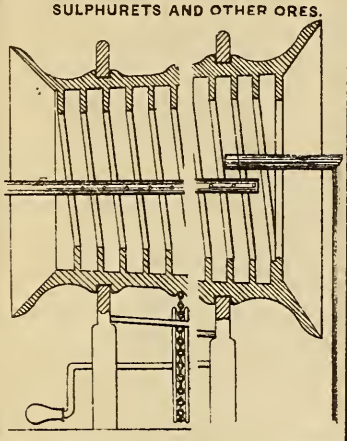


111,610. CHAS. S. CLOSE. STAIRWAYS.

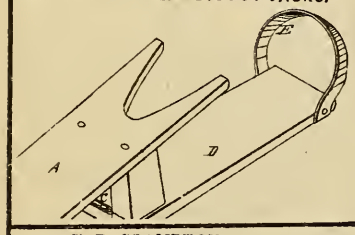


111,611. JUDD M. COBB.
MANUFACTURE OF STRAW-BOARD FOR THE CONSTRUCTION OF BUILDINGS.

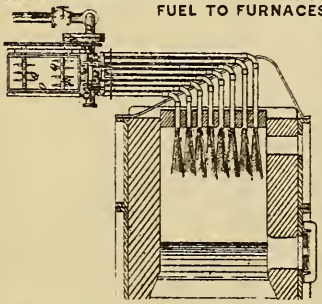
111,612. CHARLES C. COLEMAN
APPARATUS FOR CLEANING SULPHURETS AND OTHER ORES.



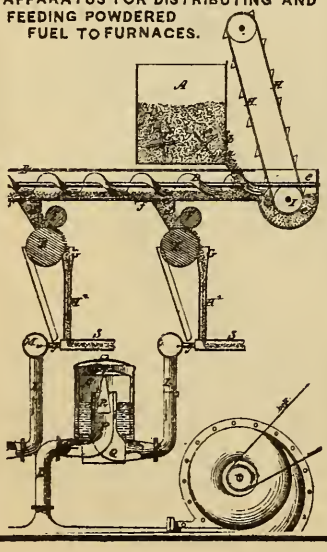
111,613 EZRA COLEMAN. BOOT-JACKS.



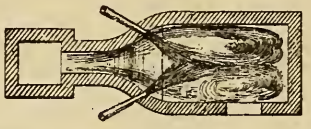
111,614. T. R. CRAMPTON.
APPARATUS FOR FEEDING PULVERIZED FUEL TO FURNACES.



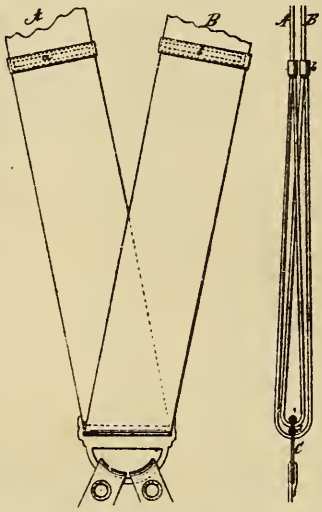
111,615, T. R. CRAMPTON.
APPARATUS FOR DISTRIBUTING AND FEEDING POWDERED FUEL TO FURNACES.



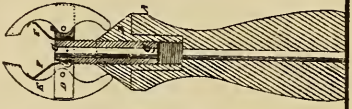
111,616. T. R. CRAMPTON.
FURNACES FOR BURNING PULVERIZED FUEL.



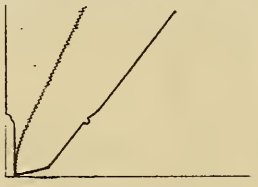
111,617, JOHN W. DAYTON.
SUSPENDERS.



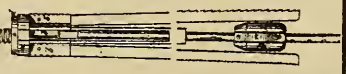
111,618. JAMES W. DEVLIN
HAND-VISES.



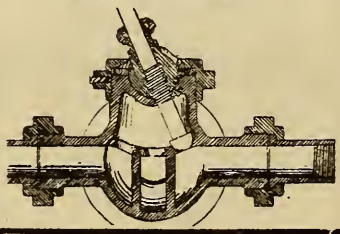
111,619. HENRY DISSTON. THOMAS OATES HILL. SAWS.



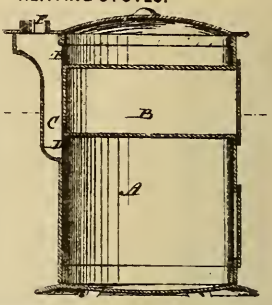
111,620 THOS. DONNELLY.
DEVICES FOR ENLARGING WELLS.



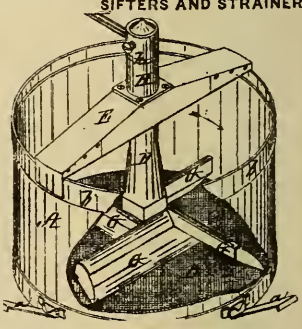
111,621. ISIDORE DREYFUS.
VALVES AND COCKS.



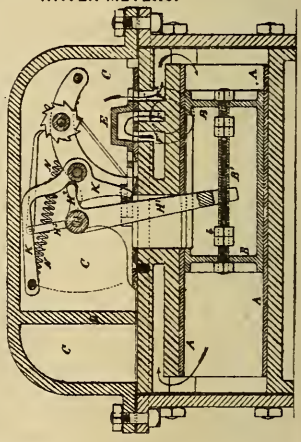
111,622, SAMUEL H. EMERY, JR. CHAUNCEY H. CASTLE.
HEATING-STOVES.



111,623, LYMAN FAY.
SIFTERS AND STRAINERS.

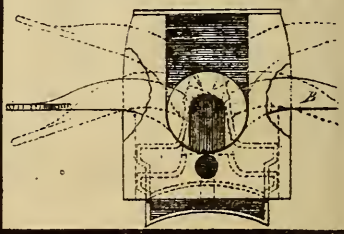


111,624. THOS. B. FOGARTY.
WATER-METERS.

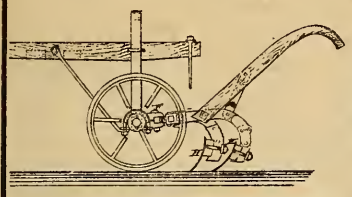


111,625, FRANKLIN D. FORD.
BOOT AND SHOE-FASTENINGS.

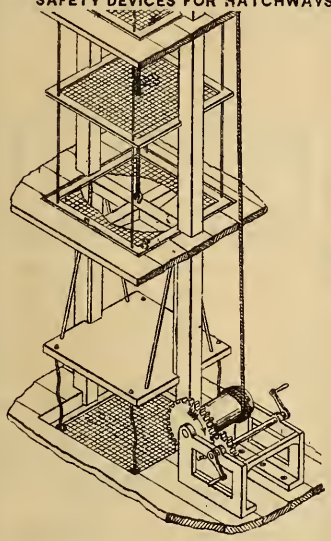
111,626. WM. FOSKET.
GATE-LATCHES.



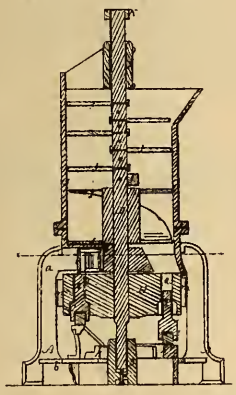
111,627, ANDREW FRIBERG.
WALKING-CULTIVATORS.



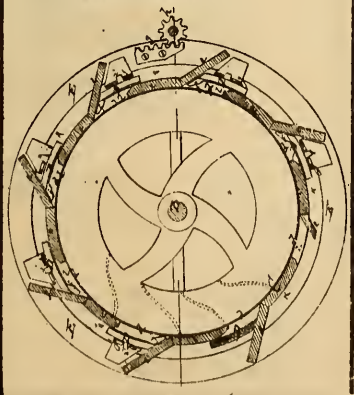
111,628, ALEXANDER FRIES.
SAFETY DEVICES FOR HATCHWAYS.



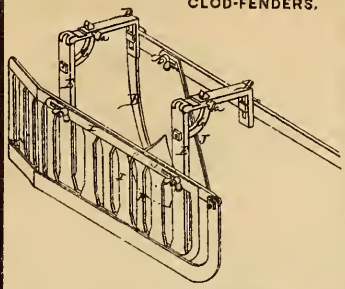
111,629, BENJAMIN M. GARD.
EMERY R. GARD.
BRICK-MACHINES.



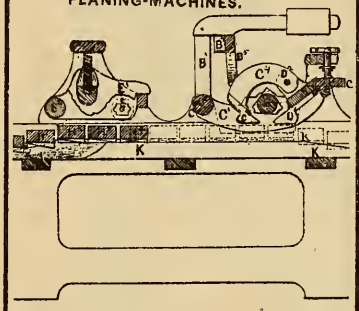
111,630, JAMES GARDNER.
WATER-WHEELS.



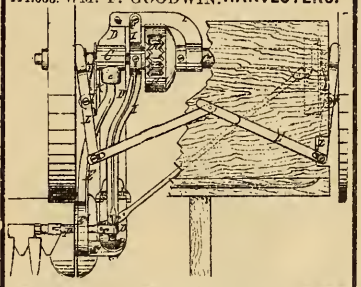
111,631, ROBERT T. GILLESPIE.
CLOD-FENDERS.



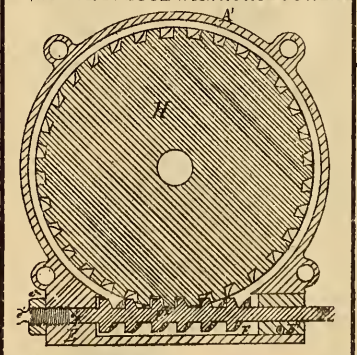
111,632, JAMES GOODRICH.
HENRY J. COLBURN.
PLANING-MACHINES.



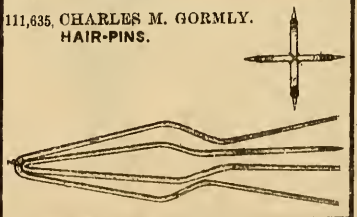
111,633, WM. F. GOODWIN. HARVESTERS.



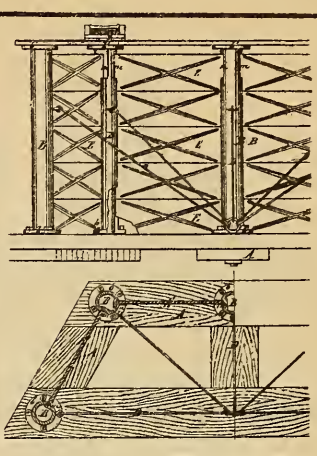
111,634 WM. F. GOODWIN. HORSE-POWERS



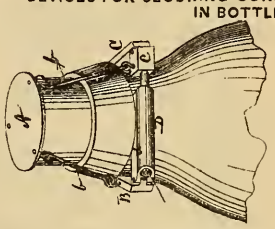
111,635, CHARLES M. GORMLY.
HAIR-PINS.



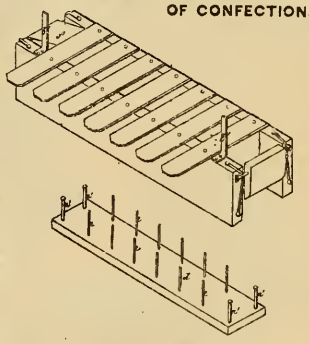
111,636, JACOB S. GOSHORN
IRON ABUTMENTS FOR BRIDGES.



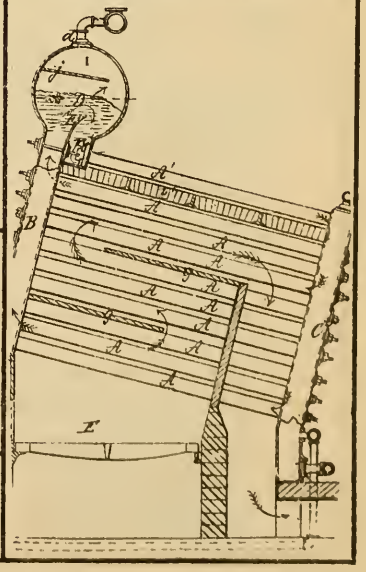
111,637, SAML. L. GOUVERNEUR.
DEVICES FOR SECURING CORKS IN BOTTLES.



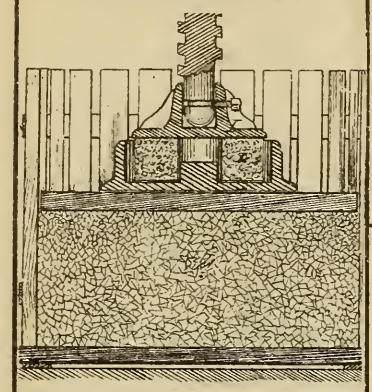
111,638, WILLIAM F. GOWARD.
APPARATUS FOR THE MANUFACTURE OF CONFECTIONERY.



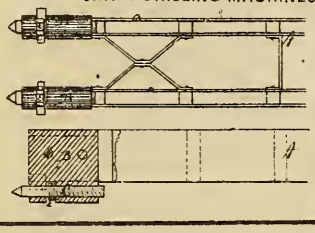
111,639, JAMES. S. GRIFFITH.
CHAS. E. EMERY.
SECTIONAL STEAM-BOILERS.



111,640. THOMAS W. GRINTER.
WINE AND CIDER-PRESSES.



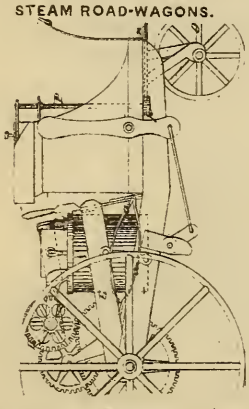
111,641. JOHN P. GRISCOM.
JOHN FRITZ.
BRIDGES FOR SUPPORTING SHAFT-DRILLING MACHINES.



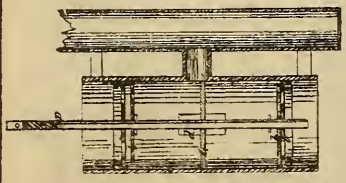
111,642. JOSEPH HAFENEGGER.
EXPLOSIVE COMPOUNDS.

111,643. OLIVER P. HART.
CAMS FOR QUARTZ-MILLS.

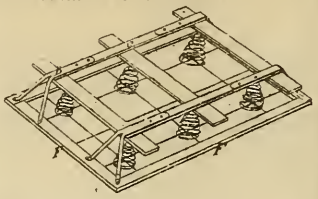
111,644. CHARLES W. HERMANCE
STEAM ROAD-WAGONS.



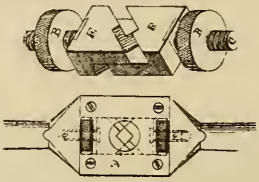
111,645. OLIVER HIGGINS.
PUMPS.



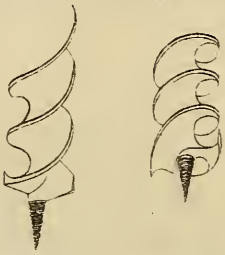
111,646. EGBERT B. HILL.
SPRING BED-BOTTOMS.



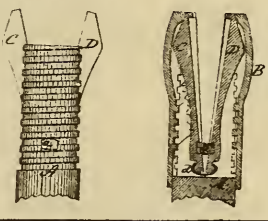
111,647. GEORGE W. HUNTOON.
EDWIN SIMONDS
TAP-WRENCHES.



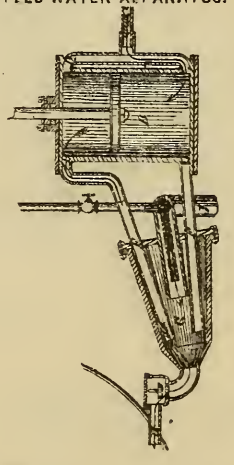
111,648. W. A. IVES. AUGERS.



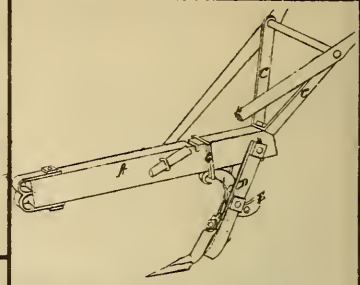
111,649. W. A. IVES.
BIT-BRACES.



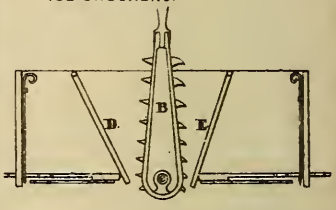
111,650. JAMES KINDEL.
FEED-WATER APPARATUS.



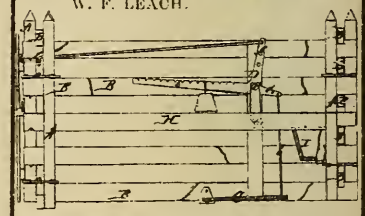
111,651. SAMPSON B. KING
PLOWS



111,652. OLIVER B. KINSEY.
ICE-CRUSHERS.



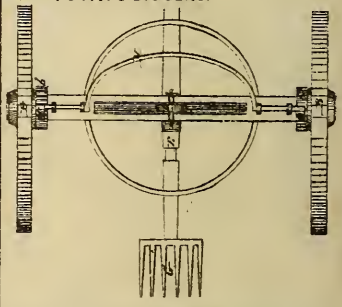
111,653. D. P. LEACH. PORTABLE STALLS.
W. F. LEACH.



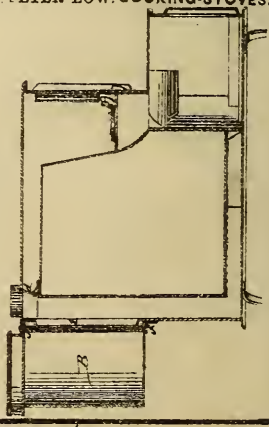
111,654 JOHN LIGHTFOOT.
DYEING AND PRINTING TEXTILE FABRICS

111,655. HENRY LISTER.
MEDICAL COMPOUNDS.

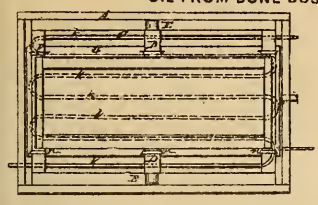
111,656. GEORGE C. LOVE.
POTATO-DIGGERS.



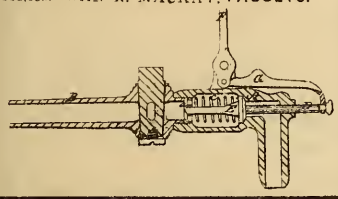
111,657. PETER LOW. COOKING-STOVES.



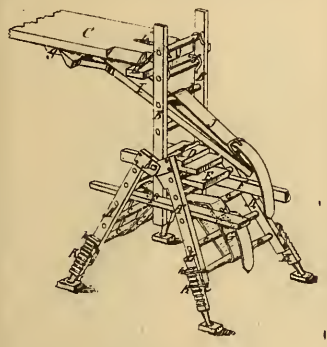
111,658. WILLIAM W. LUCAS.
APPARATUS FOR EXTRACTING OIL FROM BONE-DUST.



111,659. JOHN R. MACKAY. FAUCETS.

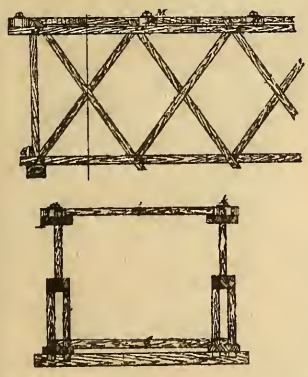


111,660. NICHOLAS MARTZ. SCAFFOLDS.

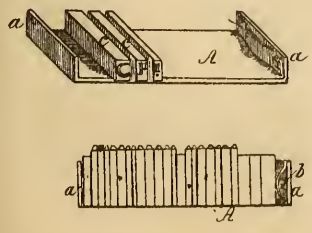


111,661. JAMES H. McCONNELL.
MANUFACTURE OF PAPER, CORDAGE, TWINE, &c.

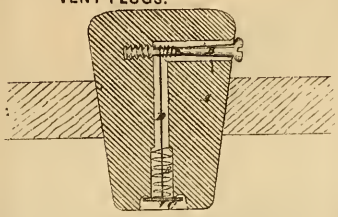
111,662. J. A. McKAY.
TRUSS-BRIDGES.



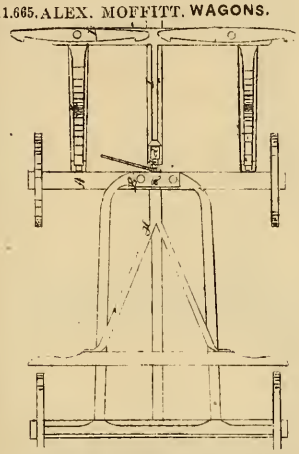
111,663. WILLIAM McNAUGHTON.
TYPE-HOLDERS.



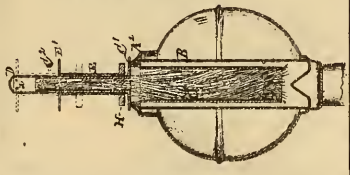
111,664. CHARLES H. MILLER.
WM. ASCOUGH.
VENT-PLUGS.



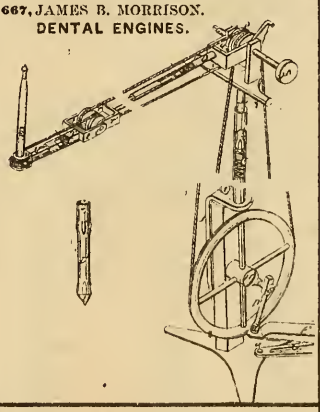
111,665. ALEX. MOFFITT. WAGONS.



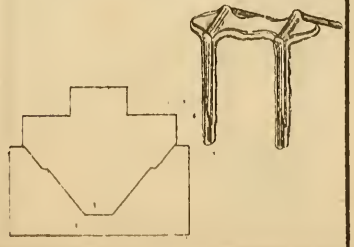
111,666. THOMAS MOORE.
JAMES O'DONALD
VAPOR-BURNERS.



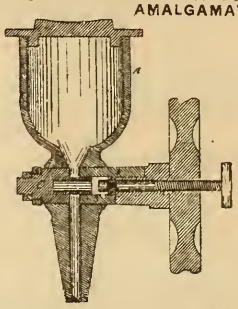
111,667. JAMES B. MORRISON.
DENTAL ENGINES.



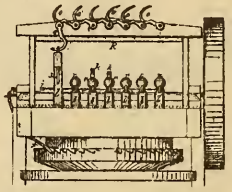
111,668. F. B. MORSE
DIES FOR FORGING, TRIMMING, AND SHAPING SPRING-CLIPS FOR CARRIAGES.



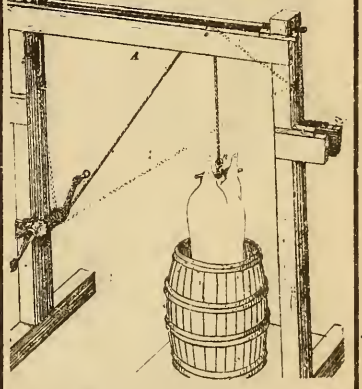
111,669. GEORGE C. MUNSON.
FEEDING QUICKSILVER TO STAMPS AND AMALGAMATORS.



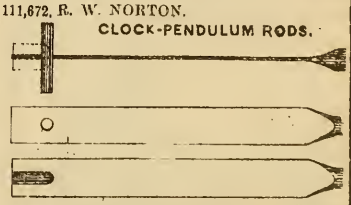
111,670. HUGH B. MURPHY.
MEAT-CUTTERS.



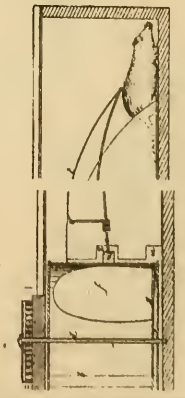
111,671. JASON NEWTON.
ANIMAL-HOISTING APPARATUS.



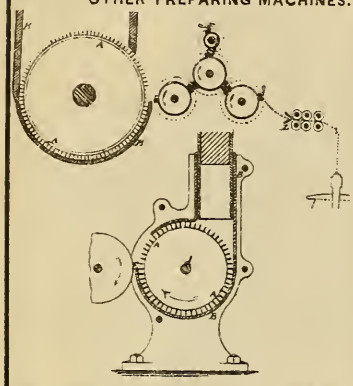
111,672. R. W. NORTON.
CLOCK-PENDULUM RODS.



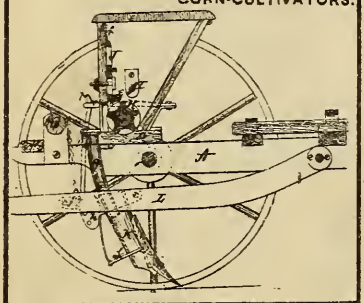
111,673. JAMES O. PARRISH.
ANIMAL-TRAPS.



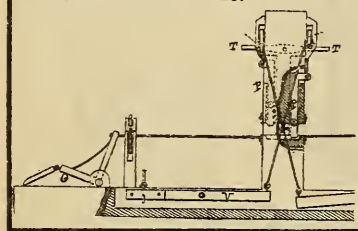
111,674. EDWIN PETTITT.
FEEDING DEVICES FOR CARDING AND OTHER PREPARING MACHINES.



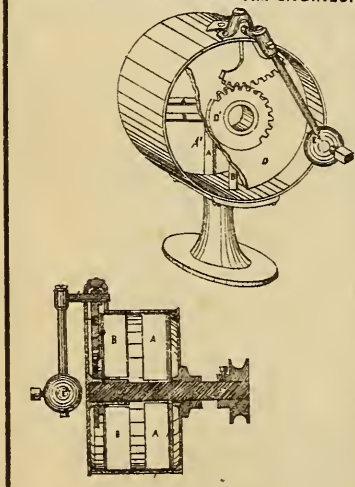
111,675. D. B. PLATT.
COMBINED GRAIN-DRILLS AND CORN-CULTIVATORS.



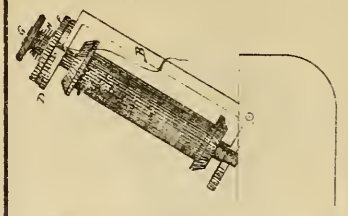
111,676. JOHN POOL. GATES.



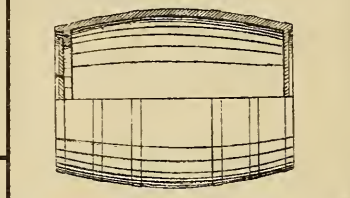
111,677. GEORGE F. POTTLE.
GOVERNORS FOR STEAM-ENGINES.



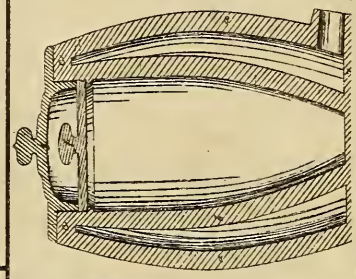
111,678. GEO. M. PRATT.
SHUTTLES FOR SEWING-MACHINES.



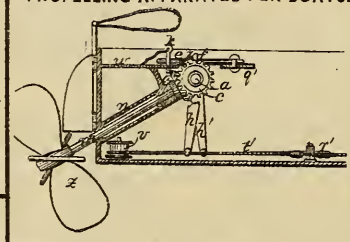
111,679. A. PUTNAM, JR.
CAST-IRON BARRELS.



111,680. A. PUTNAM, JR. WATER-COOLERS

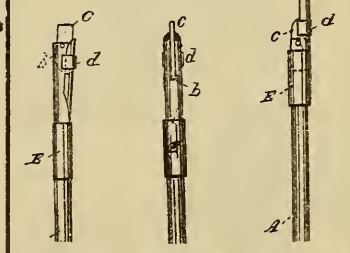


111,681. JOSEPH REPETTI.
PROPELLING APPARATUS FOR BOATS.



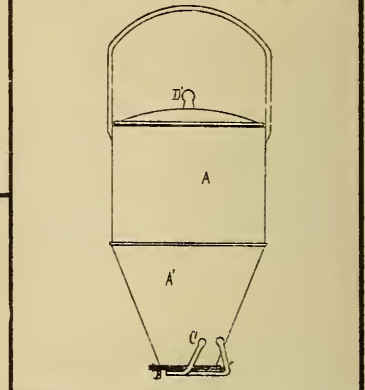
111,682 ALBERT D. RICHARDS.
MEDICATED PLASTERS.

111,683. HENRY ROTH.
PEN-HOLDERS.

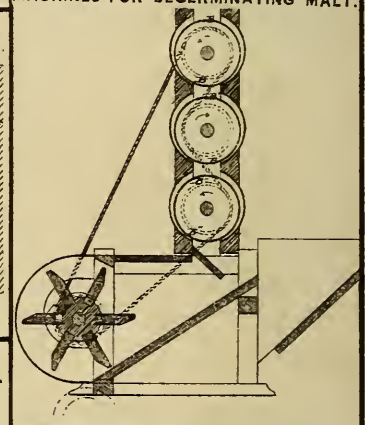


111,684. CHARLES E. RUSS.
BOXES FOR PACKING AND TRANSPORTING SHEET-METAL CANS.

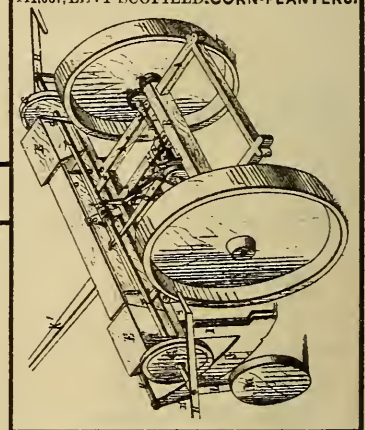
111,685. CHRISTOPHER SALVO.
FERTILIZER-DISTRIBUTERS.



111,686. CHARLES SAUTER.
MACHINES FOR DEGERMINATING MALT.

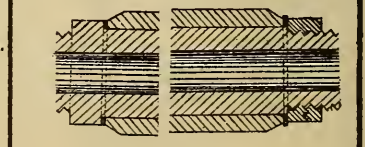


111,687. LEVI SCOFIELD. CORN-PLANTERS.

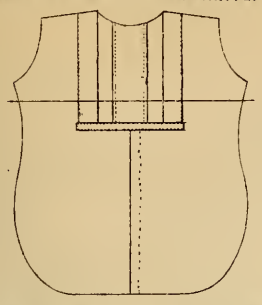


111,688. DAVID SCRYMGEOUR.
ELECTROTYPE-DIES OR MOLDS FOR MOLDING PLASTIC MATERIALS.

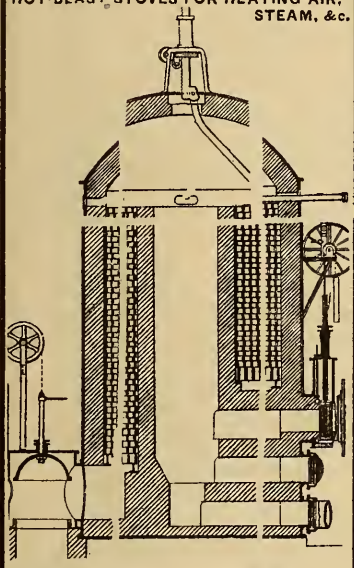
111,689. JACOB SHELLEY.
ROCK-DRILLS.



111,690. SOLOMON SIBLEY. SHIRTS.



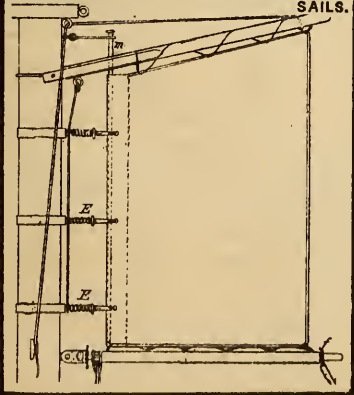
111,691. C. WILLIAM SIEMENS.
EDWARD ALFRED COWPER.
CHARLES COCHRANE.
HOT-BLAST STOVES FOR HEATING AIR, STEAM, &c.



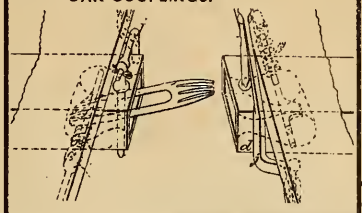
111,692. JOSEPH T. SMITH.
RAILROAD TICKETS.

111,693. WILLIAM E. SPARKS.
SPRING-BOLTS.

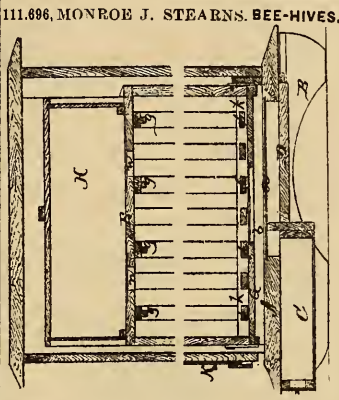
111,694. WILLIAM SPEAR.
DEVICES FOR REEFING AND FURLING SAILS.



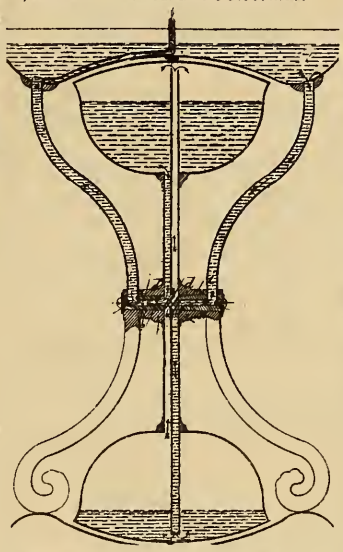
111,695. LAROY S. STARRETT.
CAR-COUPLINGS.



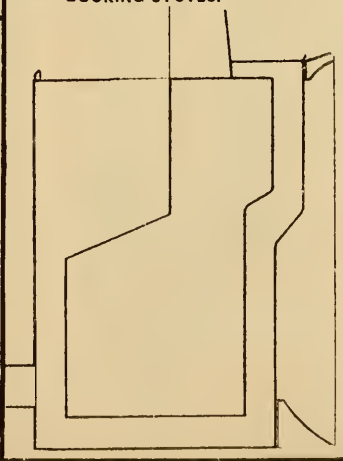
111,696. MONROE J. STEARNS. BEE-HIVES.



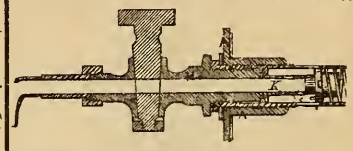
111,697. JOSEPH STORER. FOUNTAINS.



111,698. DAVID STUART.
COOKING-STOVES.



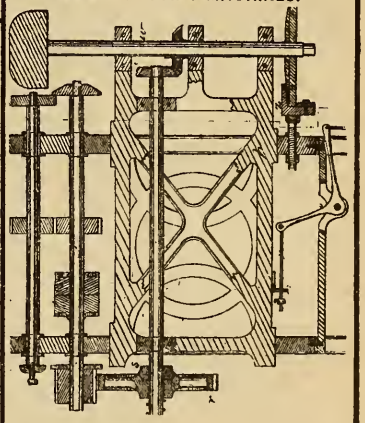
111,699. CORNELIOUS SULLIVAN.
COMBINED REMOVABLE COCKS AND FIXED SOCKETS.



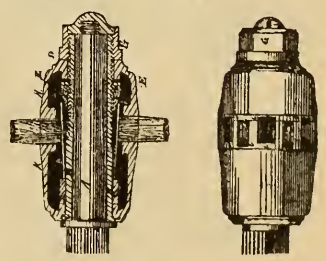
111,700. GEO. C. TAFT.
SAND OR EMERY-PAPER.

111,701. ROBT. W. THOMPSON.
FILTERS FOR CISTERNS.

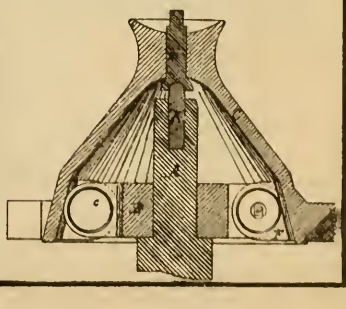
111,702. WM. H. TOPHAM.
PAPER-CUTTING MACHINES.



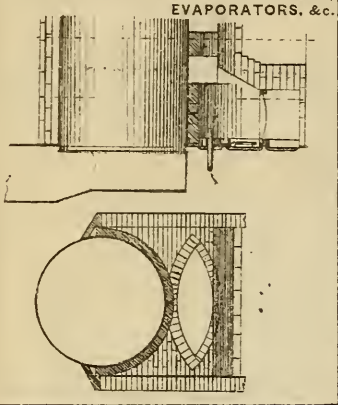
111,703. J. L. VAN WERT
HUBS FOR WHEELS.



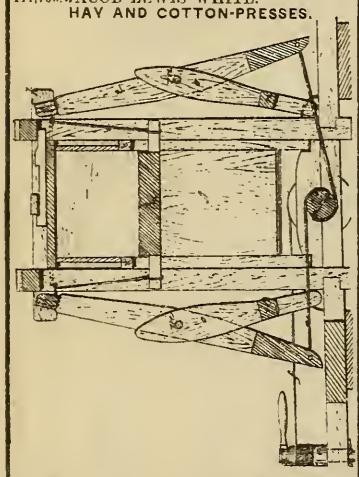
111,704. ALBERT G. WALDO.
MILLSTONE BAILS AND DRIVERS.



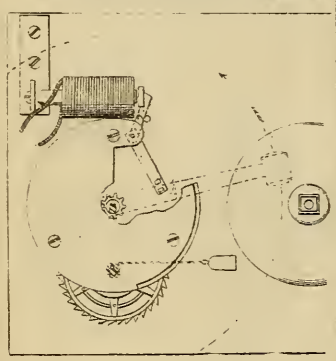
111,705. JAMES D. WHELPLEY.
JACOB J. STORER.
FURNACES FOR BURNING PULVERIZED FUEL UNDER STEAM-BOILERS, EVAPORATORS, &c.



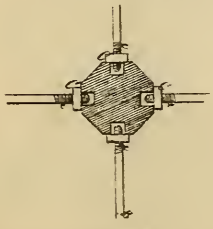
111,706. JACOB LEWIS WHITE.
HAY AND COTTON-PRESSES.

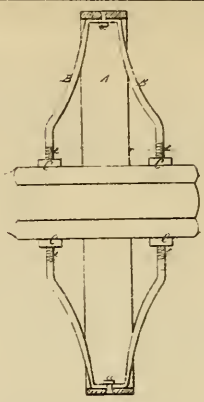


111,707. CHARLES WILLIAMS, JR.
JEROME REDDING.
ELECTRO-MAGNETIC ALARM-BELLS.

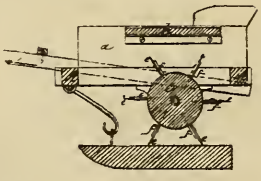


111,708 GEORGE WITHINGTON.
WHEELS FOR WHEELBARROWS.

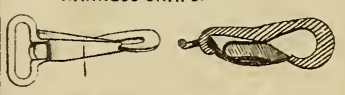




111,709. JOHN WOOD.
MACHINES FOR CUTTING CORN-STALKS.



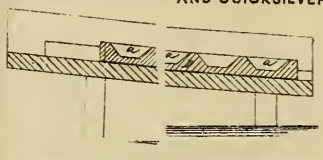
111,710. A. B. WOODARD.
WILLIAM BRUEN.
HARNESS-SNAPS.



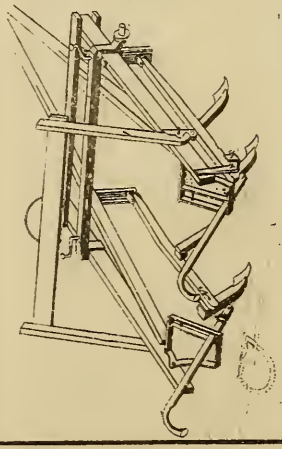
111,711. WESLEY A. WRIGHT.
MEDICATED SMOKING-TOBACCOS.

111,712. WESLEY A. WRIGHT.
TREATING SMOKING-TOBACCO.

111,713. OLIVER H. YOUNG.
DANIEL J. VAUGN.
DEVICES FOR SAVING GOLD AMALGAM AND QUICKSILVER.

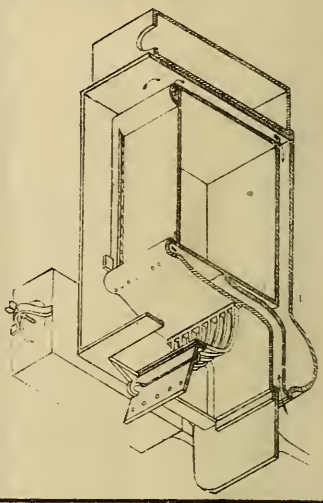


4,252. WILLIAM A. DRYDEN
CYRUS E. DRYDEN.
CULTIVATORS

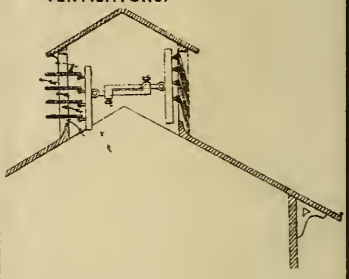


4,253. ABIEL CODDING, JR.
ENAMELED BRACELETS

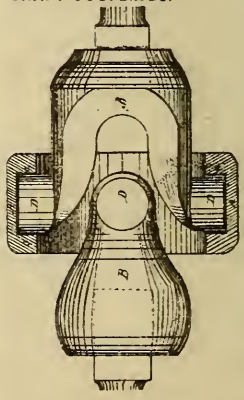
4,254. CHARLES P. GEISSENHAINER.
COOKING-STOVES.



4,255. MELVILLE E. MEAD.
VENTILATORS.



4,256. SILAS C. SCHOFIELD
SHAFT-COUPLINGS.



4,257. HENRY G. TYER.
OVERSHOES.

ILLUSTRATIONS OF PATENTS

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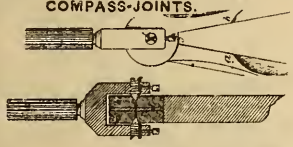
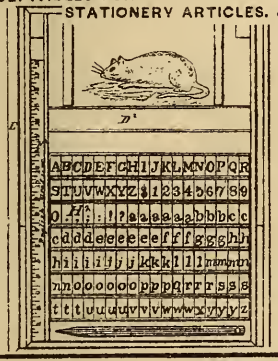
111,714. DANIEL R. ALLEN. SEATS FOR VEHICLES.

111,715, THEODORE ALTENEDER. COMPASS-JOINTS.

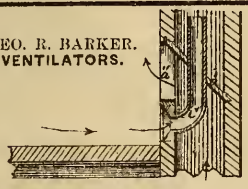


111,716. MORITZ ALTMANN LEATHER TO RESEMBLE CLOTH.

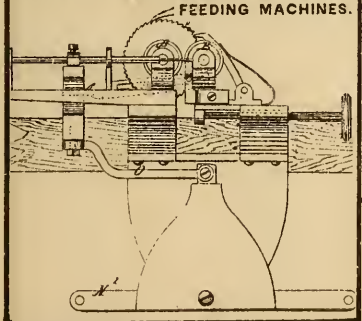
111,717. WILLIAM F. BAADE. RECEPTACLES FOR STATIONERY ARTICLES. &c.



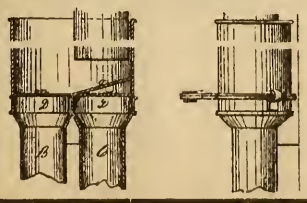
111,718 GEO. R. BARKER. VENTILATORS.



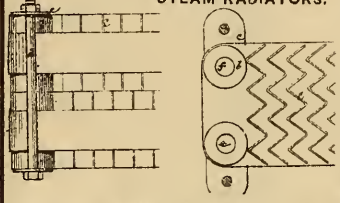
111,719. WILLIAM BARRY. LEATHER-PUNCHING AND FEEDING MACHINES.



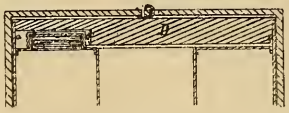
111,720, IC. M. BIXBY. WATER CUT-OFFS.



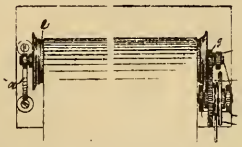
111,721. GEO. W. BLAKE. STEAM-RADIATORS.



111,722, ALFRED BOOTH. REFRIGERATING OYSTER-CANS.

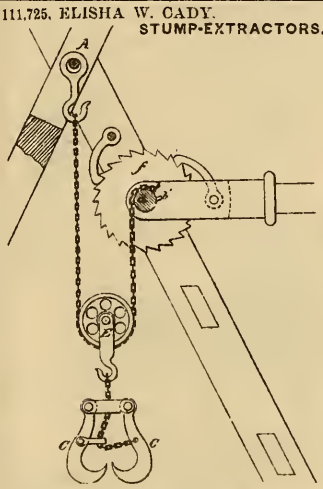


111,723, CHAS. M. BROWN. CECIL L. GATES. CURTAIN-FIXTURES.

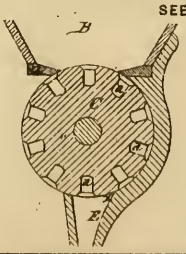


111,724, CLOSSON P. BURGESS. JAMES R. STEVENSON. COMPOSITIONS FOR PAVEMENTS.

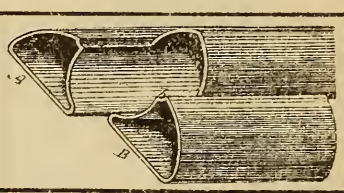
111,725. ELISHA W. CADY. STUMP-EXTRACTORS.



111,726. GEORGE A. CARMAN. SEED-SOWERS.

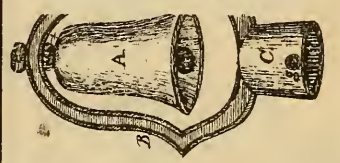


111,727, AARON W. CONLEY. DRAIN-TILES.

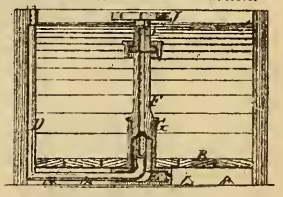


111,728. J. M. CONNEL. SASH-BALANCES.

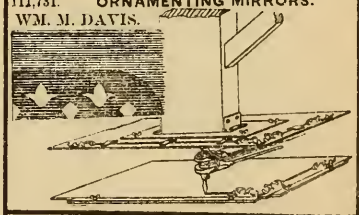
111,729, SYLVESTER CROLL. STATIONARY BELL-HOLDERS.



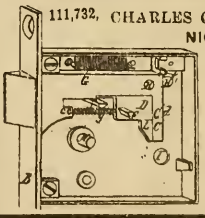
111,730, HILEN C. CROWELL. APPARATUS FOR LEACHING BARK.



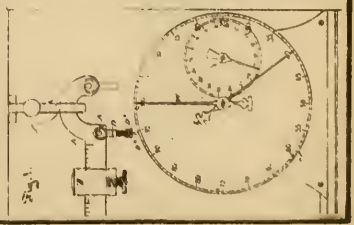
111,731. ORNAMENTING MIRRORS. WM. M. DAVIS.



111,732, CHARLES C. DICKERMAN. NIGHT-LATCHES.

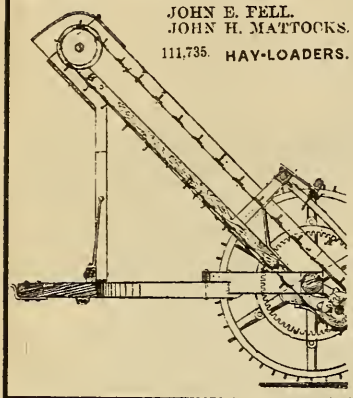


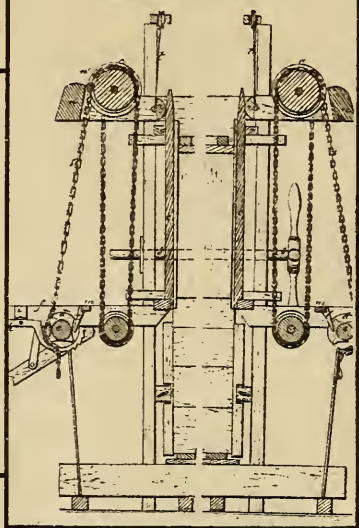
111,733. FRANKLIN FAIRBANKS. HARVLIN PADDOCK. WEIGHING-SCALES.

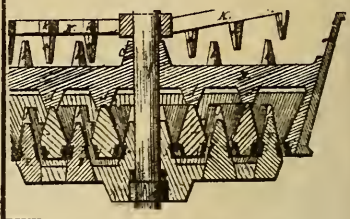


111,734 LEVI S. FALES.
TREATING BLOOD FOR THE MANUFACTURE OF FERTILIZERS.

JOHN E. FELL.
JOHN H. MATTOCKS.
111,735. HAY-LOADERS.

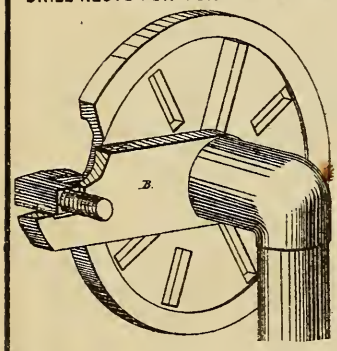




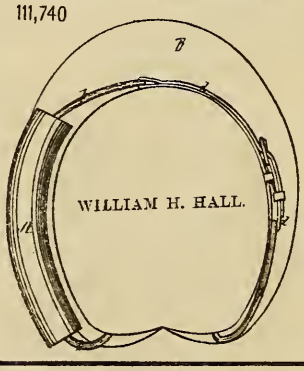


111,745. ANIMAL-TRAPS
ASAHEL A. HOTCHKISS.

111,736, HENRY H. FOLSOM
DRILL-RESTS FOR TURNING-LATHES.

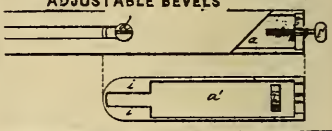


INTERFERING-PADS FOR HORSES.
111,740

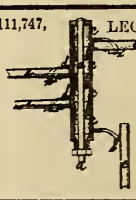


WILLIAM H. HALL.

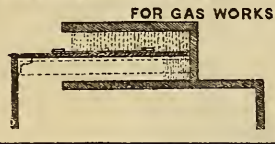
LEONARD D. HOWARD.
ADJUSTABLE BEVELS 111,746.



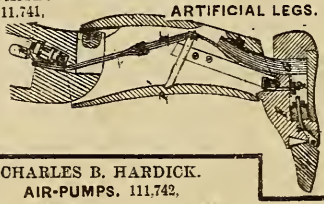
111,747, LEONARD D. HOWARD.
CLOTHES-DRIERS.



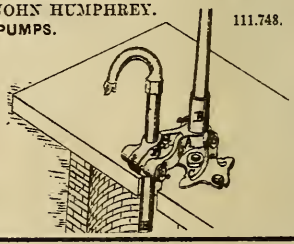
111,737. ANDREW FULTON.
PURIFIERS, CONDENSERS, &c., FOR GAS WORKS.



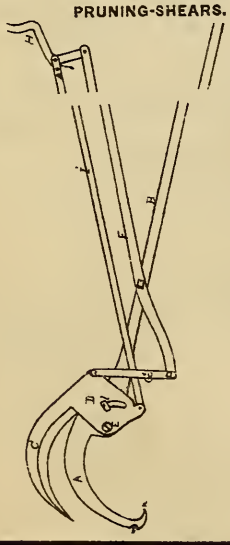
JAMES E. HANGER.
111,741. ARTIFICIAL LEGS.



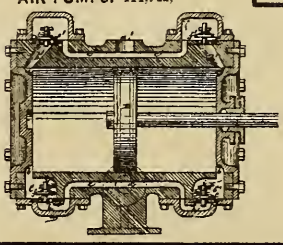
JOHN HUMPHREY.
PUMPS. 111,748.



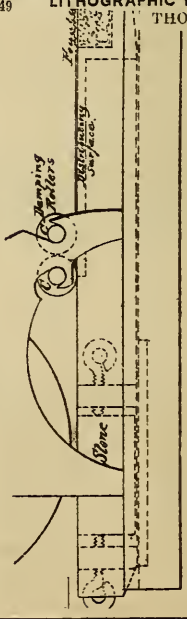
111,738, ERASMUS D. GAINES.
JOHN A. McMILLEN.
PRUNING-SHEARS.



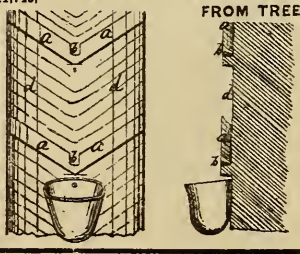
CHARLES B. HARDICK.
AIR-PUMPS. 111,742.



111,749 LITHOGRAPHIC PRESSES.
THOS. HUNTER.



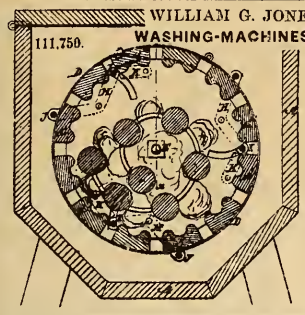
BENJAMIN I. HAZARD.
111,743. EXTRACTING TURPENTINE FROM TREES.



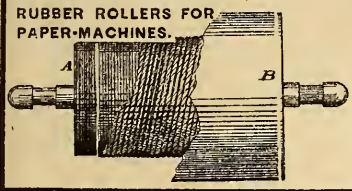
111,739. JOHN B. GRIDLEY.
COTTON-PRESSES.

111,744 JOHN HELENBROOK.
BARK-MILLS.

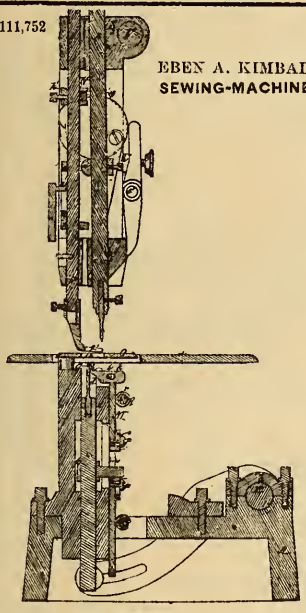
111,750. WILLIAM G. JONES.
WASHING-MACHINES.



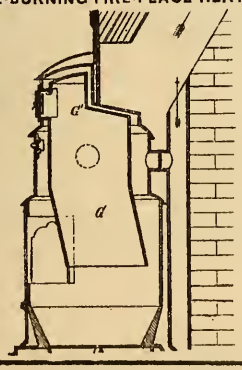
RICHARD A. KELTY. 111,751.
RUBBER ROLLERS FOR PAPER-MACHINES.



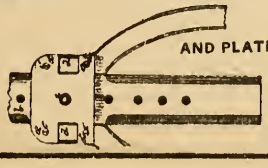
111,752 EBEN A. KIMBALL.
SEWING-MACHINES.



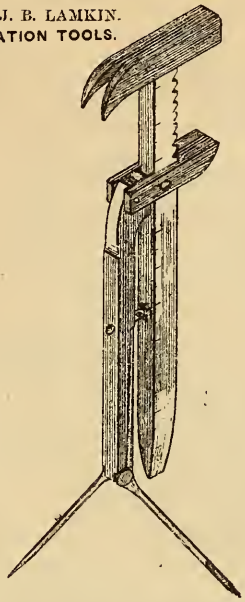
111,753. PHILIP KLOTZ.
BASE-BURNING FIRE-PLACE HEATERS.



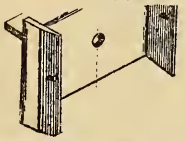
111,755. WILLIAM J. LEWIS.
WAGON-HOUND COUPLING-BOXES AND PLATES.



111,754, J. B. LAMKIN.
COMBINATION TOOLS.

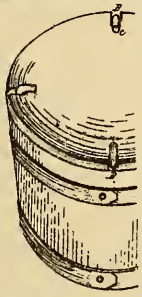


111,756. WM. J. LEWIS
RUBBER-BLOCK HOLDERS FOR WAGON-BRAKES.

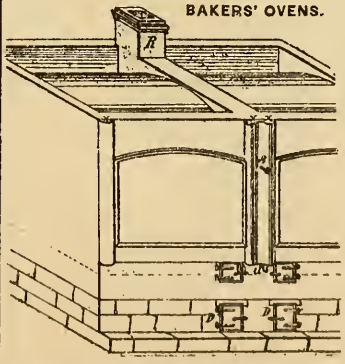


111,757. AARON E. LINDSLEY.
POST-HOLE DIGGERS.

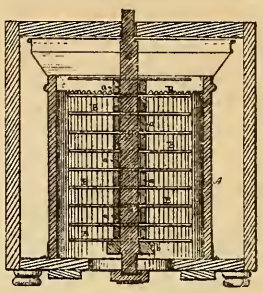
111,758. WILLIAM MARSH.
BUTTER-TUBS, &c.



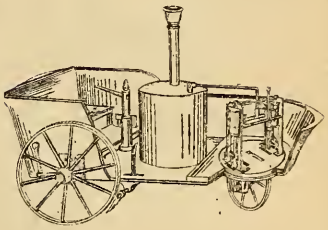
111,759. ALEXANDER MARTIN.
BAKERS' OVENS.



111,760. PLEASANT H. MASSEY
MILL-STONE FEEDERS AND GRAIN-SCOURERS.

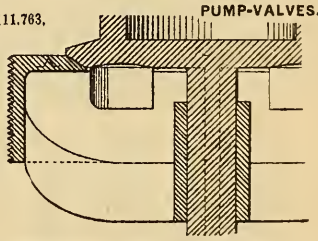


111,761. STEAM LAND-CARRIAGES.
JEROME B. McKINLEY.

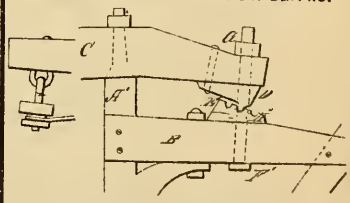


111,762. BRYANT H. MELENDY.
COMBINED KEY-RINGS AND DOOR-FASTENERS.

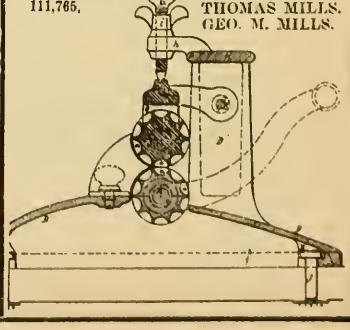
111,763. CHARLES L. MERRILL.
PUMP-VALVES.



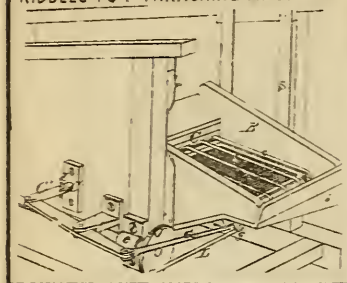
111,764. SAMUEL HOLDEN MILLER.
PLOW-BEAMS.



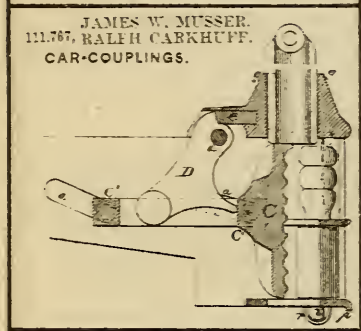
MACHINES FOR MAKING CANDY.
111,765. THOMAS MILLS.
GEO. M. MILLS.



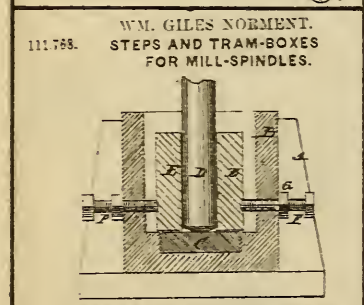
111,766. DANIEL MURPHY.
RIDDLES FOR THRASHING-MACHINES.



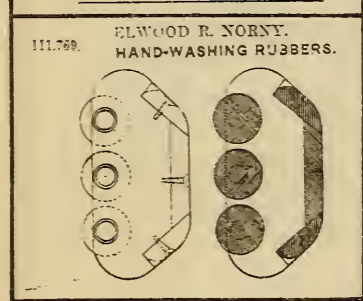
JAMES W. MUSSER.
111,767. RALPH CARKHUFF.
CAR-COUPLINGS.



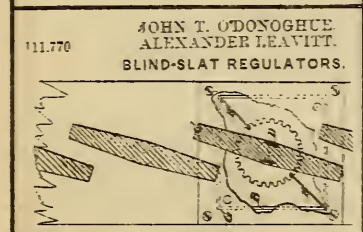
WM. GILES NORMENT.
111,768. STEPS AND TRAM-BOXES FOR MILL-SPINDLES.



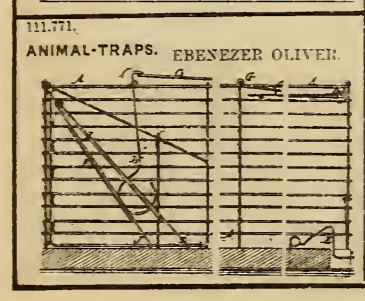
111,769. ELWOOD R. NORNY.
HAND-WASHING RUBBERS.



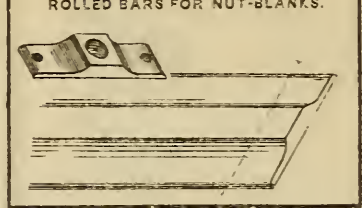
111,770 JOHN T. O'DONOGHUE.
ALEXANDER LEAVITT.
BLIND-SLAT REGULATORS.



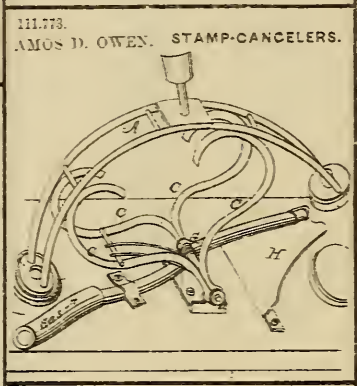
111,771.
ANIMAL-TRAPS. EBENEZER OLIVER.



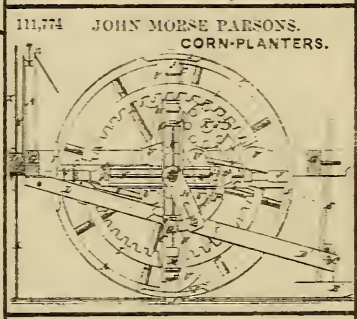
111,772. HENRY W. OLIVER, JR.
ROLLED BARS FOR NUT-BLANKS.



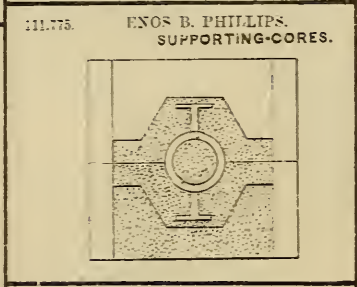
111,773.
AMOS D. OWEN. STAMP-CANCELERS.



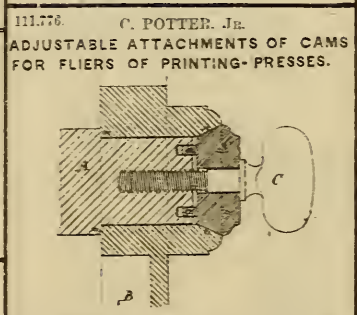
111,774 JOHN MORSE PARSONS.
CORN-PLANTERS.



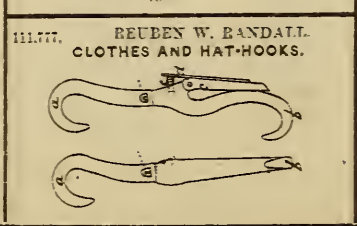
111,775. ENOS B. PHILLIPS.
SUPPORTING-CORES.



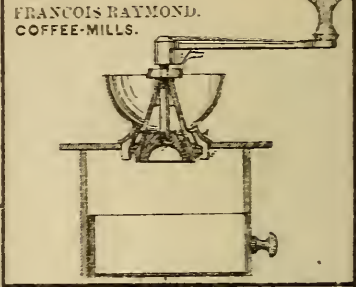
111,776. C. POTTER, JR.
ADJUSTABLE ATTACHMENTS OF CAMS FOR FLIERS OF PRINTING-PRESSES.



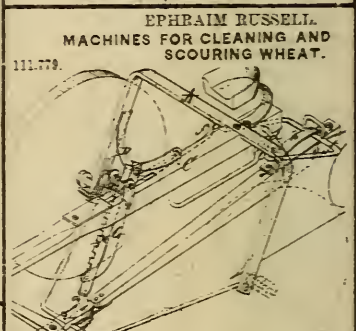
111,777. REUBEN W. RANDALL.
CLOTHES AND HAT-HOOKS.



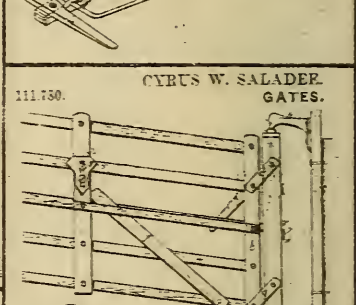
111,778.
FRANCOIS RAYMOND.
COFFEE-MILLS.



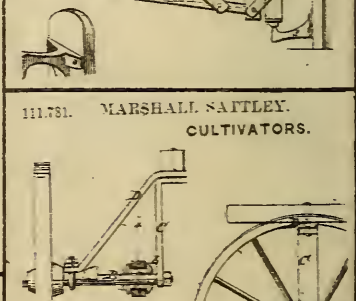
EPHRAIM RUSSELL.
MACHINES FOR CLEANING AND SCOURING WHEAT.
111,779.



CYRUS W. SALADER.
111,780. GATES.

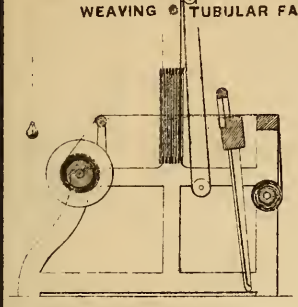


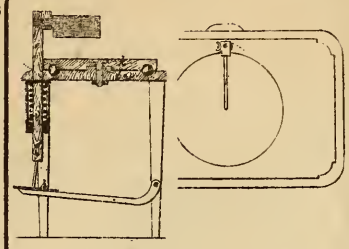
111,781. MARSHALL SATTLEY.
CULTIVATORS.



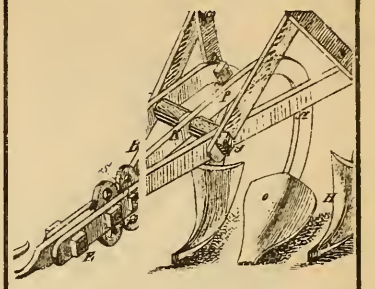
111,782, SARAH A. SEXTON.
SEWING-MACHINE SEATS.

111,783. GUILFORD SMITH.
WEAVING TUBULAR FABRICS

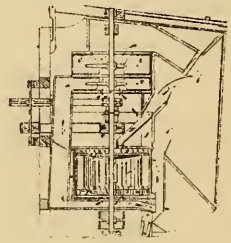




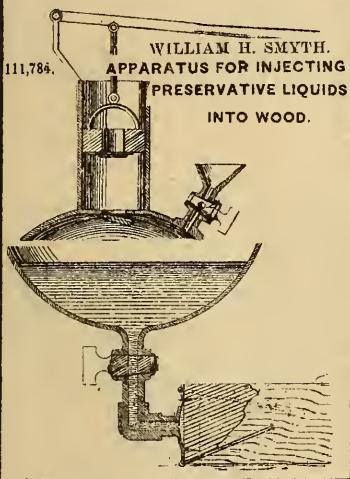
111,789. JOHN THOMAS.
REMOVING SLAG FROM FURNACES.



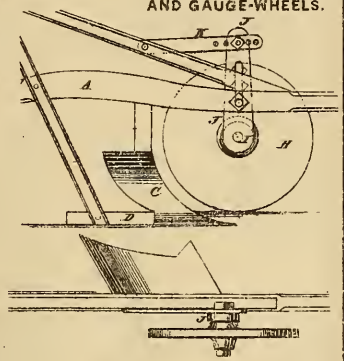
111,794. WM. H. WASH.
SMUT AND WHEAT-SEPARATING MACHINES.



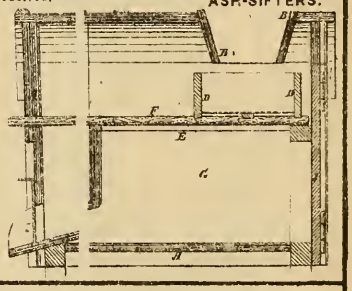
111,784. WILLIAM H. SMYTH.
APPARATUS FOR INJECTING PRESERVATIVE LIQUIDS INTO WOOD.



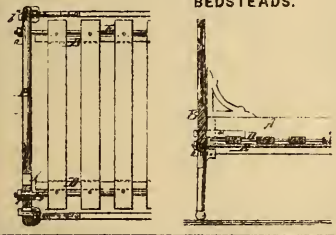
111,790. ALEXANDER B. THORNTON.
COMBINED FENDERS AND GAUGE-WHEELS.



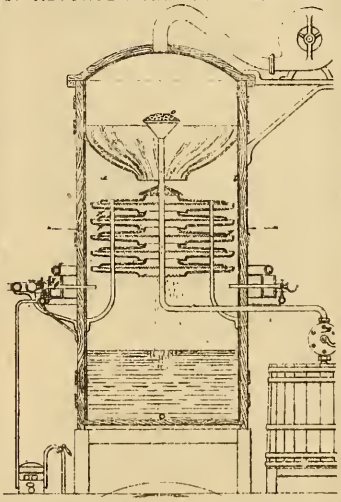
111,795. WILLIAM WEAVER.
ASH-SIFTERS.



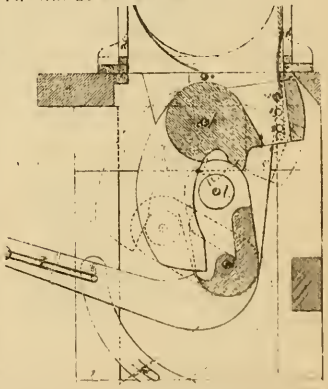
111,785. GEO. SNOWDEN.
BEDSTEADS.



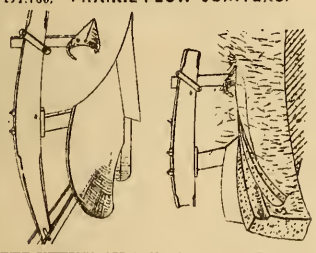
111,791. REUBEN D. TURNER.
APPARATUS FOR THE TREATMENT OF ALCOHOLIC AND OTHER SPIRITS.



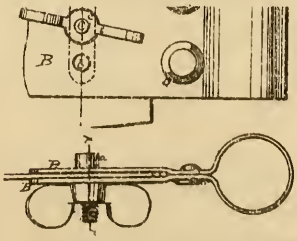
111,796. W. L. WILLIAMS.
MACHINES FOR BUNDLING WOOD.



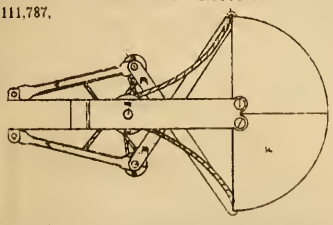
ANDREW J. SPICER.
111,786. PRAIRIE-PLOW JOINTERS.



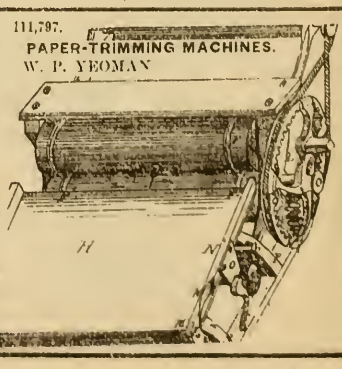
SAML. W. VALENTINE.
111,792. METHODS OF ATTACHING HANDLES TO SAWS.



THOMAS SYMONDS. EXCAVATORS.
111,787.



111,797.
PAPER-TRIMMING MACHINES.
W. P. YEOMAN

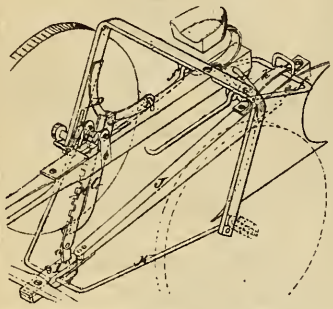


111,788. JAMES H. THOMAS.
MACHINES FOR CUTTING CHEESE, BUTTER, &c.

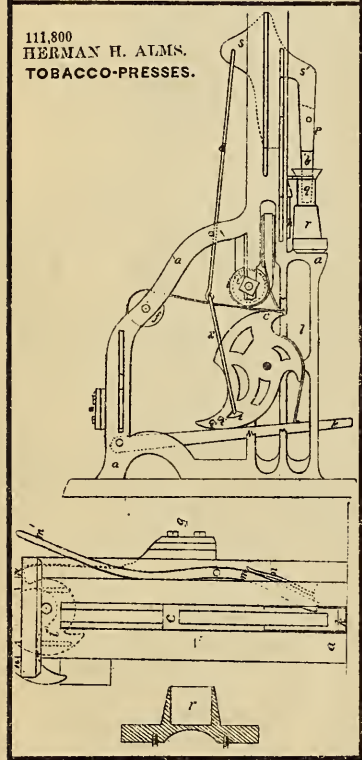
111,793. R. P. VAN HORNE.
DOUBLE-SHOVEL PLOWS.

111,798. THOS. ADAMS.
CHEWING-GUM.

111,799, A. H. ALLISON.
SULKY-ATTACHMENTS FOR BREAKING-PLOWS.



111,800
HERMAN H. ALMS.
TOBACCO-PRESSES.



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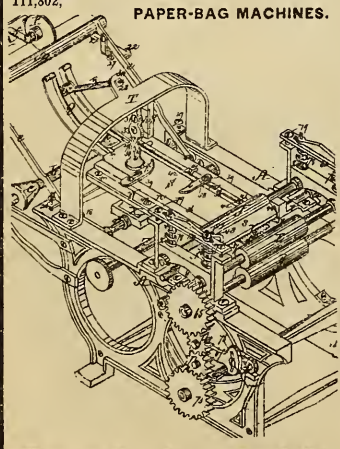
111,802, CHS. F. ANNAN.
PAPER-BAG MACHINES.



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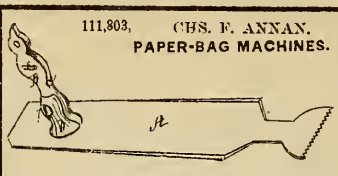
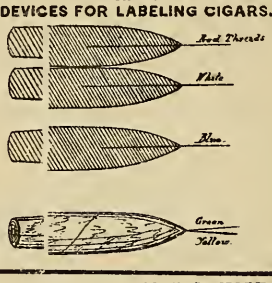
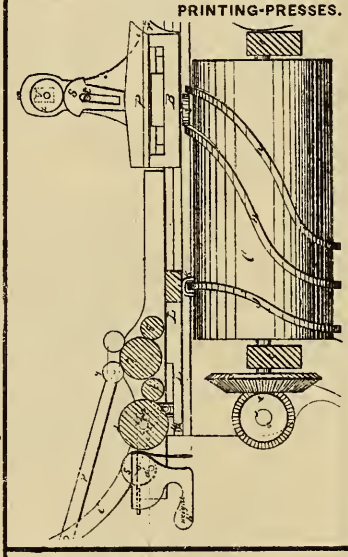
PAPER-BAG MACHINES.



111,804, R. H. ANDREWS.
DEVICES FOR LABELING CIGARS.



111,805, AMOS H. BANGLE.
PRINTING-PRESSES.



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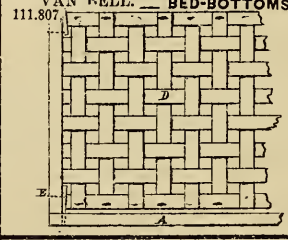
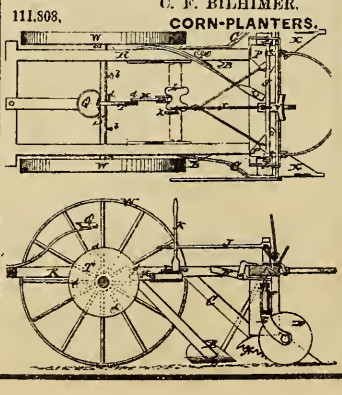
CONCRETE FOR PIPES, BRICKS, &c.

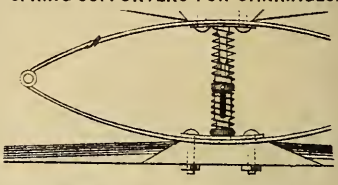
VAN BELL. BED-BOTTOMS.
111,807.



111,808, C. F. BILHIMER.
CORN-PLANTERS.



111,809, DANIEL H. BROWN.
SPRING-SUPPORTERS FOR CARRIAGES.



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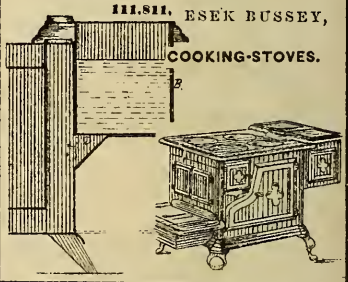
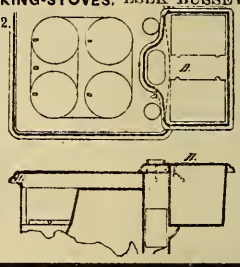
HENRY J. BRUNNER.
MILLSTONE-PICKS.

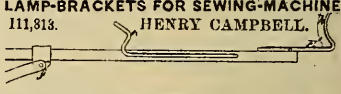
111,811, ESEK BUSSEY,
COOKING-STOVES.



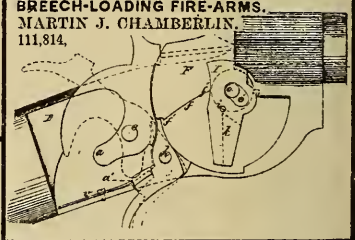
COOKING-STOVES, ESEK BUSSEY.
111,812.



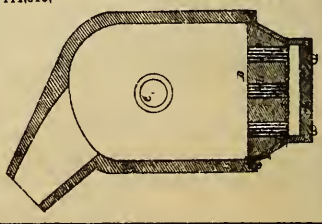
LAMP-BRACKETS FOR SEWING-MACHINE
111,813. HENRY CAMPBELL.



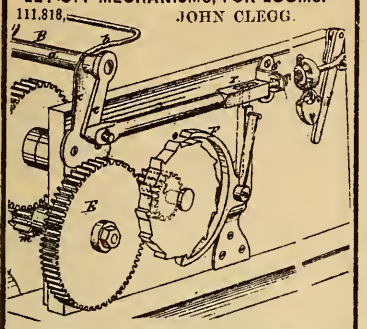
BREECH-LOADING FIRE-ARMS.
MARTIN J. CHAMBERLIN.
111,814.



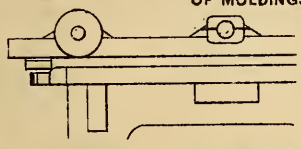
HENRY CHISHOLM.
APPARATUS FOR THE MANUFACTURE OF BESSEMER STEEL.
111,815.



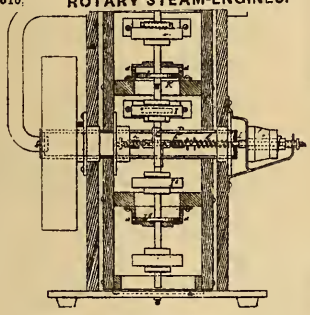
LET-OFF MECHANISMS, FOR LOOMS.
111,816. JOHN CLEGG.



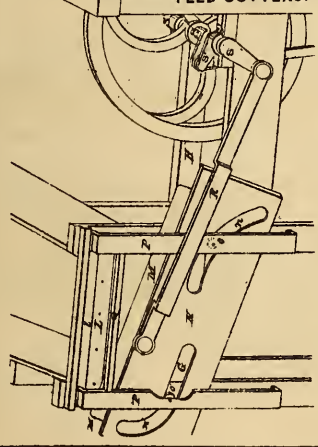
JOSEPH C. COOKE.
111,817. HENRY A. WHITELEY.
MACHINES FOR THE MANUFACTURE OF MOLDINGS.



PHILIPP CRAMER.
111,818. ROTARY STEAM-ENGINES.

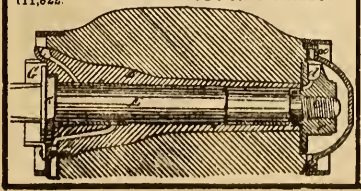


111,819. JOHN CRILEY.
WHITNEY GILBREATH.
FEED-CUTTERS.

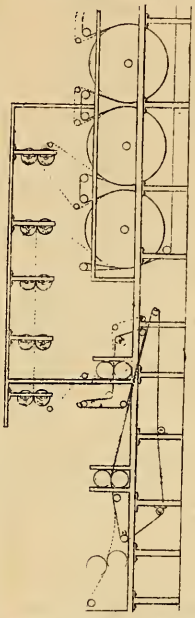


111,821 OLIVER DANFORTH.
DENTIFRICES.

CARLOS R. DONNER.
111,822. HUBS AND AXLES.

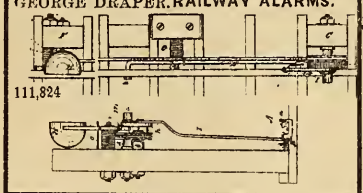


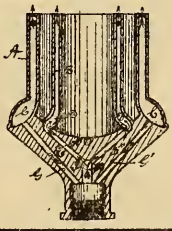
111,820. DANIEL CROSBY.
APPARATUS FOR SMOOTHING AND PRESSING PAPER DURING THE MANUFACTURE.



111,823. ELLIS DRAKE.
SHELL-FUSES.

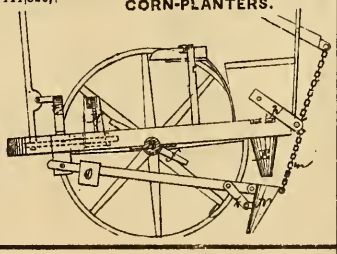
GEORGE DRAPER. RAILWAY ALARMS.
111,824



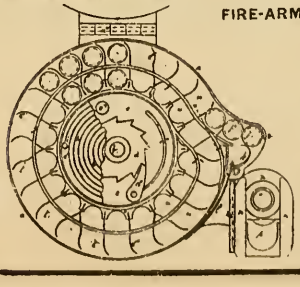


111,825. A. E. DUPAS.
GAS-BURNERS.

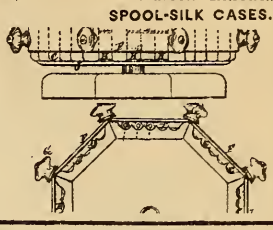
111,828. ARTHUR EDWARDS.
CORN-PLANTERS.



111,827. WM. H. ELLIOT.
MAGAZINES FOR BREECH-LOADING FIRE-ARMS.

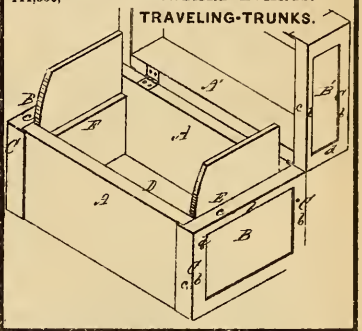


111,828. SAMUEL ELMER.
SPOOL-SILK CASES.

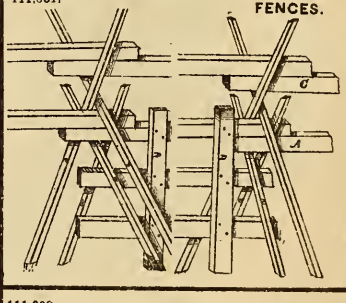


111,829. J. E. EMERSON.
GAUGES FOR SAW-FILERS.

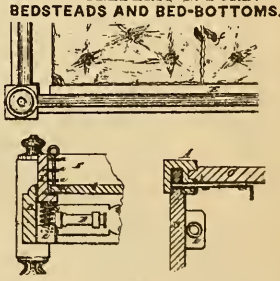
111,830. HARRY HUBBARD EVARTS.
TRAVELING-TRUNKS.



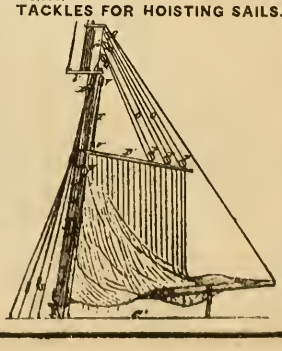
111,831. OSKER F. A. FAULKNER.
FENCES.



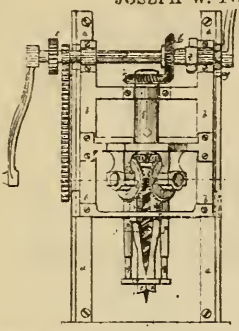
111,832. FREDERIC G. FORD.
BEDSTEADS AND BED-BOTTOMS.



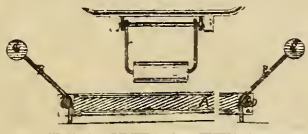
111,833. GEO. A. FORD.
TACKLES FOR HOISTING SAILS.



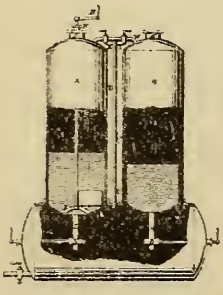
111,834 MORTISING-MACHINES. JOSEPH W. FOWLE.



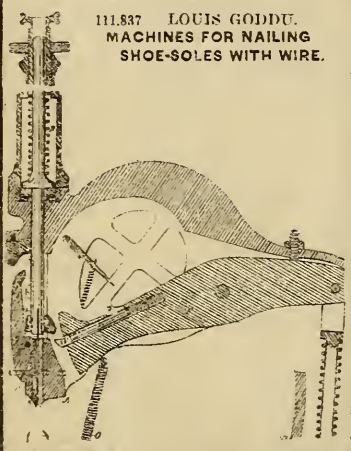
111,835. GRIDDLES. TITUS D. GAIL.



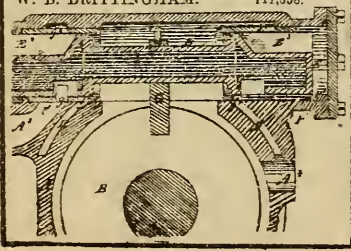
111,836. JOSEPH GARDNER. FIRE-EXTINGUISHERS.



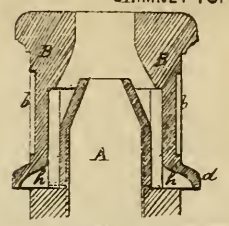
111,837 LOUIS GODDU. MACHINES FOR NAILING SHOE-SOLES WITH WIRE.



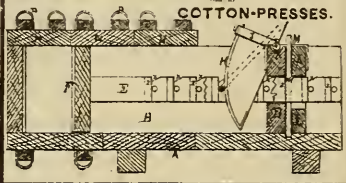
ROBT. C. GRAY. WATER-METERS.
W. B. BRITTINGHAM. 111,838.



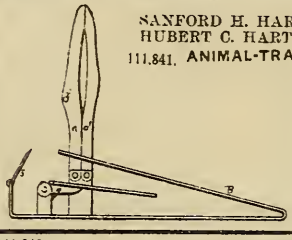
111,839. RICHARD W. GRIFFITH. CHIMNEY-TOPS.



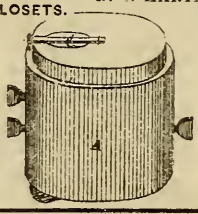
111,840. ROBERT J. his X mark HARRISON. COTTON-PRESSES.



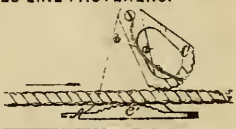
SANFORD H. HART.
HUBERT C. HART.
111,841. ANIMAL-TRAPS.



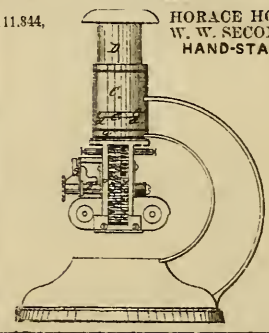
111,842. D. C. HARTMAN.
EARTH-CLOSETS.



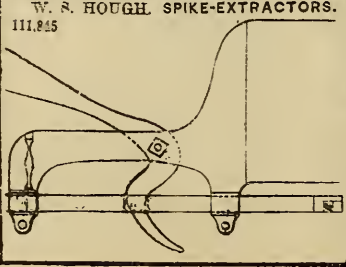
HENRY J. HENDEY.
CLOTHES-LINE FASTENERS.
111,843



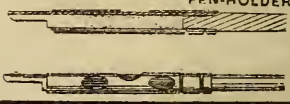
111,844. HORACE HOLT.
W. W. SECOMBE.
HAND-STAMPS.



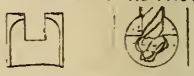
W. S. HOUGH. SPIKE-EXTRACTORS.
111,845



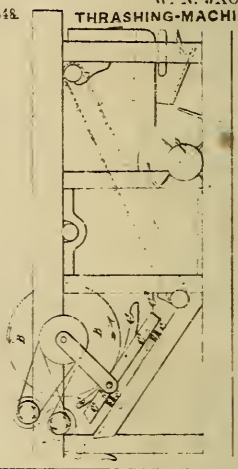
111,846. ISAAC JACOBS. PEN-HOLDERS.



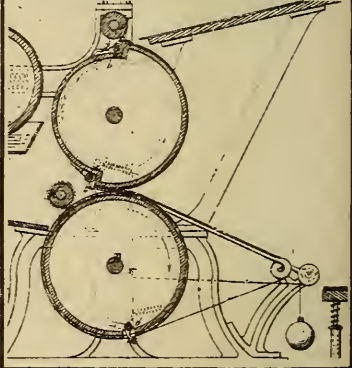
111,847. W. N. JACKSON. SASH-CORD FASTENERS.



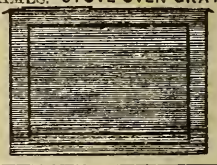
111,848. W. N. JACKSON. THRASHING-MACHINES.



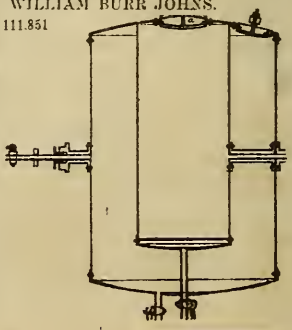
111,849 GUSTAV L. JAEGER.
MACHINES FOR LINING PASTEBOARDS.



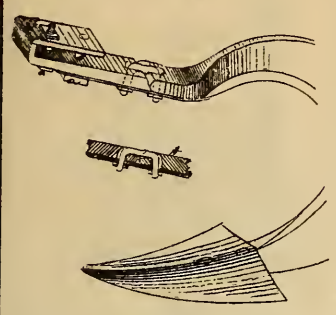
W. G. JAMES. STOVE-OVEN GRATES.
111,850.



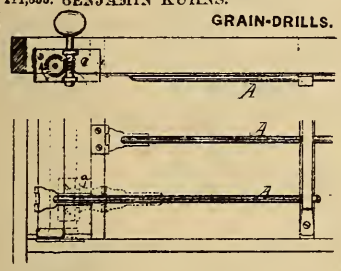
TREATING BONES, HORNS, HOOFS, &c. FOR MANUFACTURE OF FERTILIZERS.
WILLIAM BURR JOHNS.
111,851



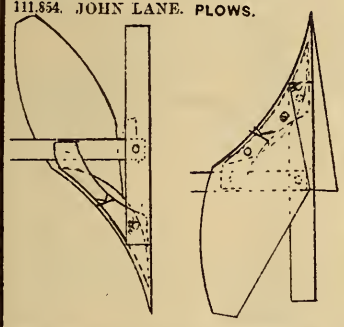
111,852, ROSS JOHNSON.
ATTACHMENTS TO PLOWS FOR SUBSOILING.



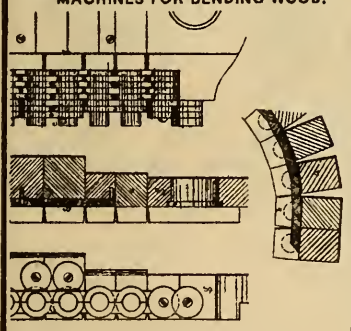
111,853. BENJAMIN KUHNS.
GRAIN-DRILLS.



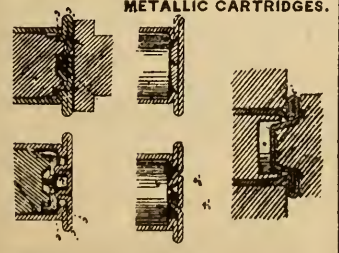
111,854. JOHN LANE. PLOWS.



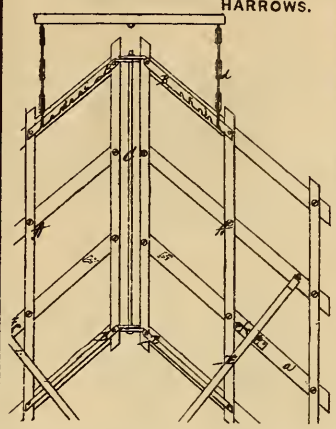
111,855, OBADIAH MARLAND.
MACHINES FOR BENDING WOOD.



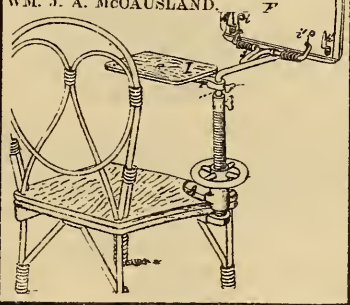
111,856. EDWIN MARTIN.
METALLIC CARTRIDGES.



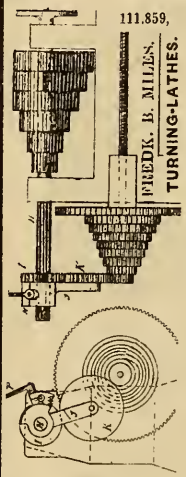
111,857. JOHN MAXTON.
COMBINED CULTIVATORS AND HARROWS.



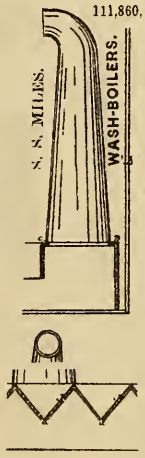
111,858. BOOK-SUPPORTS.
JOHN McCAUSLAND.
ALEXANDER McCAUSLAND.
WM. J. A. McCAUSLAND.



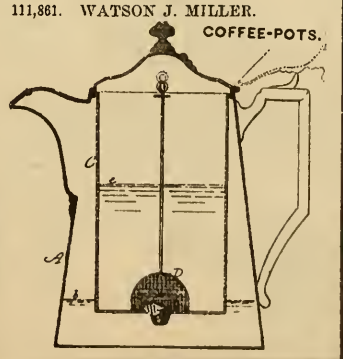
111,859,
FREDK. B. MILES.
TURNING-LATHES.



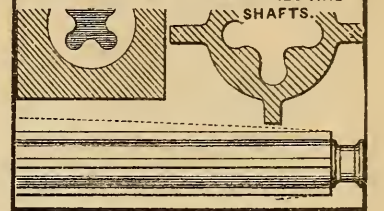
111,860,
J. S. MILES.
WASH-BOILERS.



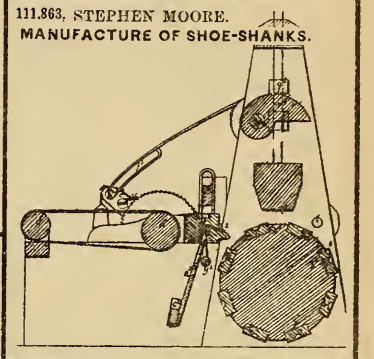
111,861. WATSON J. MILLER.
COFFEE-POTS.



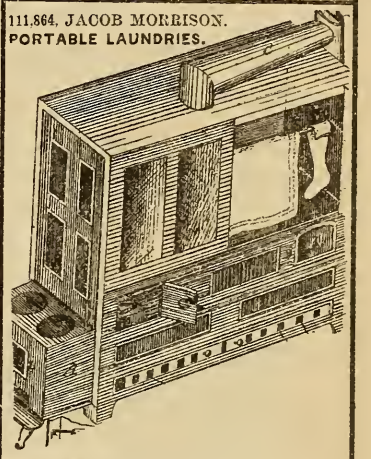
111,862, JAMES MONTGOMERY.
CONSTRUCTION OF CAR-AXLES AND SHAFTS.



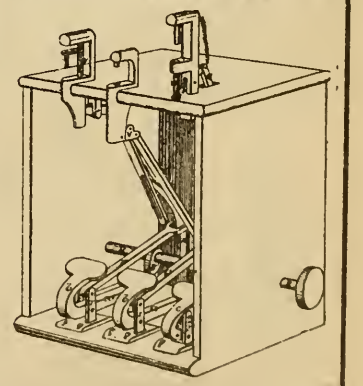
111,863, STEPHEN MOORE.
MANUFACTURE OF SHOE-SHANKS.



111,864, JACOB MORRISON.
PORTABLE LAUNDRIES.

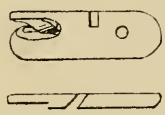


111,865, CHARLES H. MORSE.
MECHANISMS FOR OPERATING PUNCHING AND EYELETING-MACHINES.

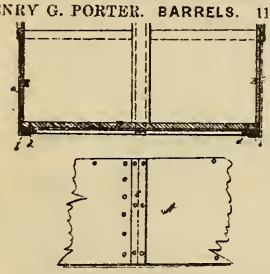


111,866, F. B. MORSE.
WHIFFLETREE-PLATES.

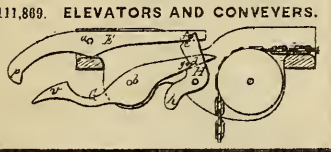
111,867, SCHAMU MORITZ MOSCHCOWITZ. ATTACHMENTS FOR SEWING-MACHINES.



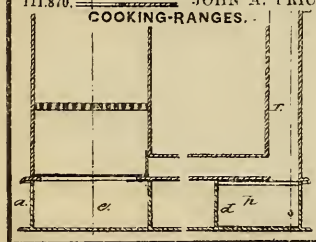
HENRY G. PORTER. BARRELS. 111,868.



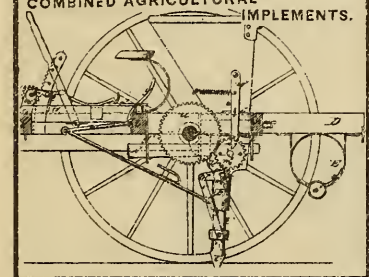
THOMAS J. POWELL. 111,869. ELEVATORS AND CONVEYERS.



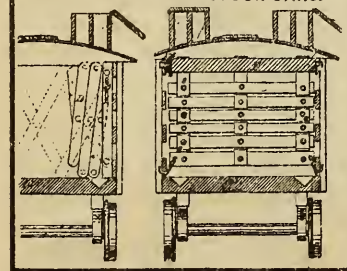
111,870. JOHN A. PRICE. COOKING-RANGES.



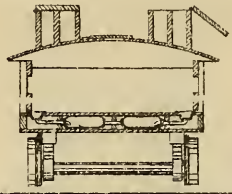
111,871. CHARLES R. RAND COMBINED AGRICULTURAL IMPLEMENTS.



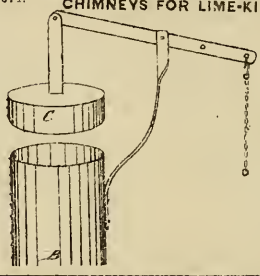
111,872. AMOS RANK. STOCK-CARS.



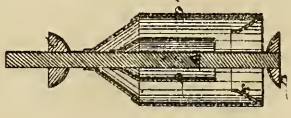
111,873 AMOS RANK. HENRY KING. JOEL SHARP. RAILWAY STOCK-CARS.



111,874. WILLIAM RENNYSON. CHIMNEYS FOR LIME-KILNS.

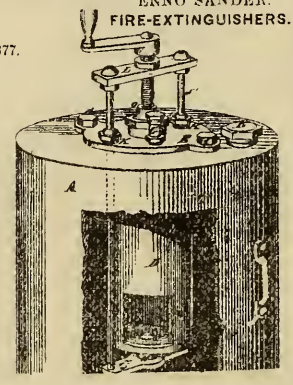


111,875. EMRY ROOKS. DEVICES FOR OBSTRUCTING ANTS.

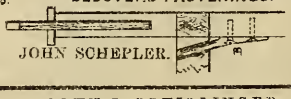


111,876. ABRAHAM RUDISILL. MANROW SELL. HORSE AND CATTLE POWDERS.

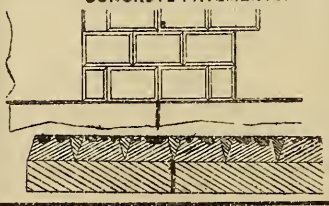
111,877. ENNO SANDER. FIRE-EXTINGUISHERS.



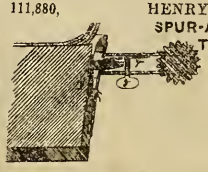
111,878. BEDSTEAD-FASTENINGS. JOHN SCHEPLER.



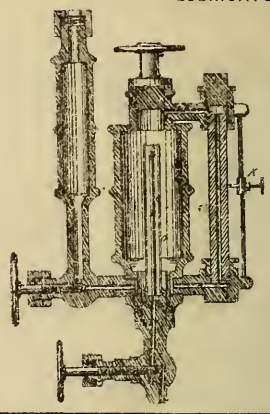
111,879. JOHN J. SCHILLINGER. CONCRETE PAVEMENTS.



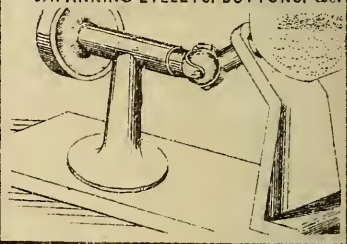
111,880. HENRY SCHWANDT. SPUR-ATTACHMENTS TO OVERSHOES.



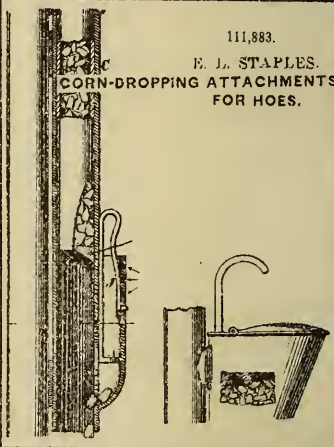
111,881. NICHOLAS SEIBERT. LUBRICATORS.



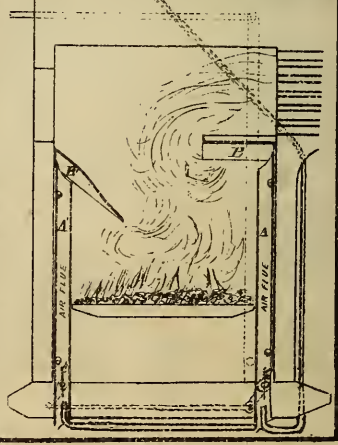
111,882. STEPHEN N. SMITH. JAPANNING EYELETS, BUTTONS, &c.



111,883. E. L. STAPLES. CORN-DROPPING ATTACHMENTS FOR HOES.

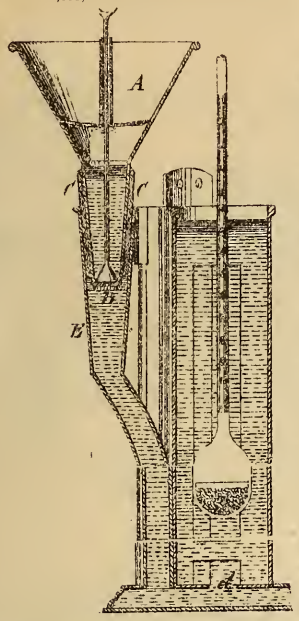


111,884. ANDREW J. STEVENS. LOCOMOTIVE-BOILER FURNACES.

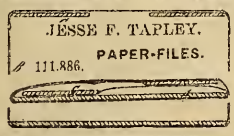


APPARATUS FOR ASCERTAINING THE PROOF-SPIRITS IN FERMENTED MASH.

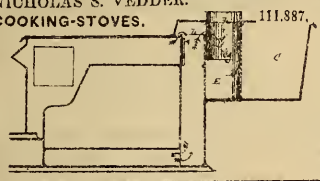
111,885. GIUSEPPE TAGLIABUE.



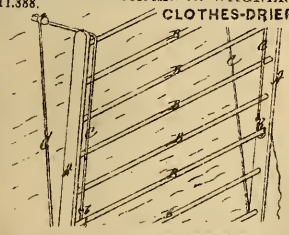
JESSE F. TAPLEY.
PAPER-FILES.
111,886.



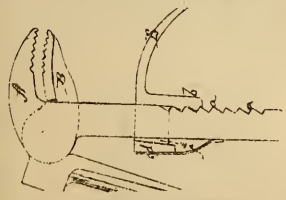
NICHOLAS S. VEDDER.
COOKING-STOVES.
111,887.



111,888. JAMES K. WAGNER.
CLOTHES-DRIERS

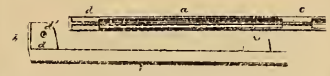


MICHAEL WALPOLE.
111,889. PINCERS FOR SHOE-MAKERS.

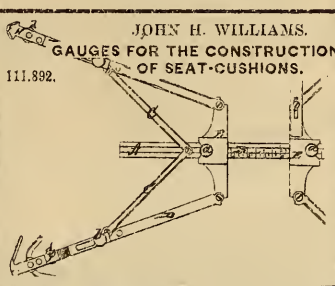


GEORGE ALLEN WARREN.
JOINERS' PLANES.
111,890.

111,891. WILLIAM P. WENTWORTH.
TIPS FOR WOODEN SHOVELS.

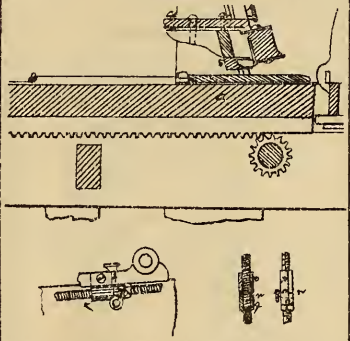


JOHN H. WILLIAMS.
GAUGES FOR THE CONSTRUCTION OF SEAT-CUSHIONS.
111,892.

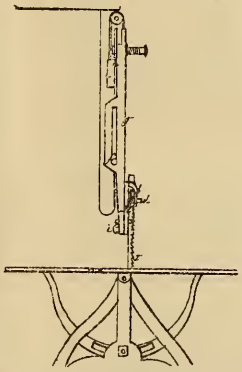


111,893. JOSEPH S. WOOD.
VAPOR-BURNERS.

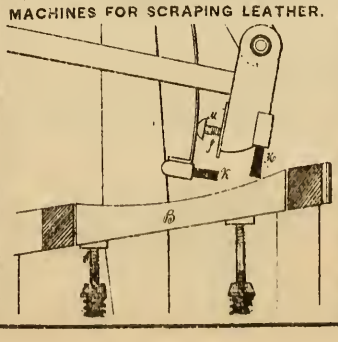
SOLOMON A. WOODS.
111,894. PLANING-MACHINES.



SAMUEL MANSKER YOUNG.
111,895. SCROLL-SAWING MACHINES.

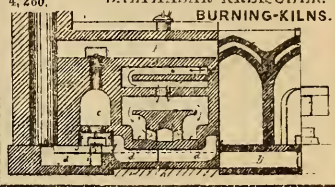


4,258. JAMES T. BARNSTEAD.
MACHINES FOR SCRAPING LEATHER.

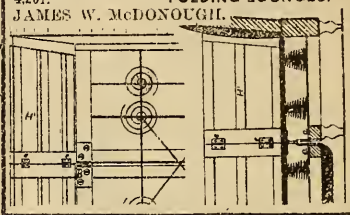


4,259. JOHN HASKINS
PERFORATED SHEET-RUBBER.

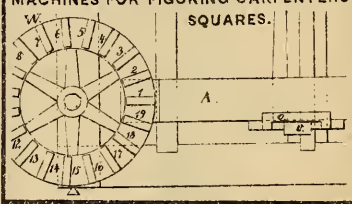
4,260. BALTHASAR KREISCHER.
BURNING-KILNS.



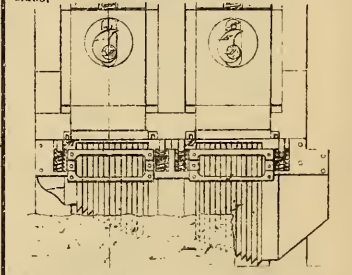
4,261. FOLDING-LOUNGES.
JAMES W. McDONOUGH.



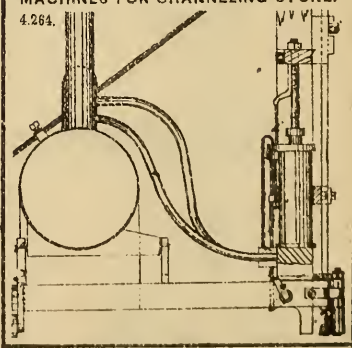
4,262. NORMAN MILLINGTON.
MACHINES FOR FIGURING CARPENTERS SQUARES.



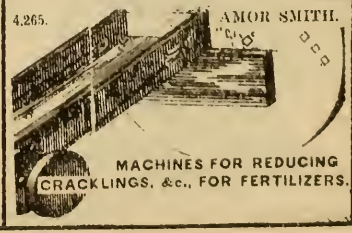
4,263. GEORGE MORGAN.
MACHINES FOR CUTTING STONE.



THOS. ROSS.
ROCKWOOD BARRETT.
MACHINES FOR CHANNELING STONE.
4,264.



4,265. AMOR SMITH.



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ILLUSTRATIONS OF PATENTS

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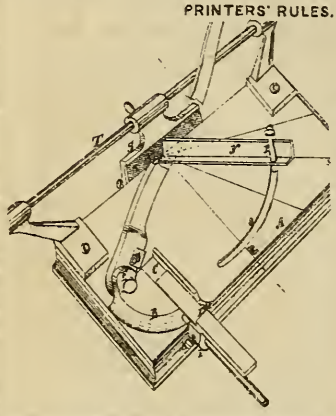
FEB. 21, 1871.

111,896. FRANK H. AIKEN.
MACHINES FOR CUTTING AND MITERING PRINTERS' RULES.



111,897. JOHN F. ALLEN.
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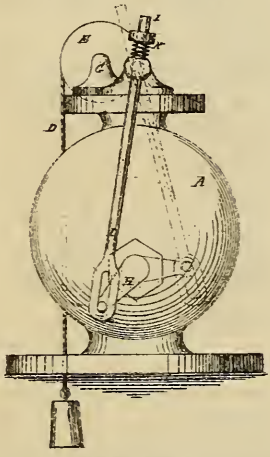

111,898. LEVI ARNOLD. FISH-HOOKS.

111,899. JAMES S. ATKINSON.
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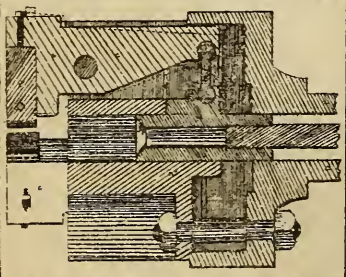

111,900. HORACE Z. BAKER.
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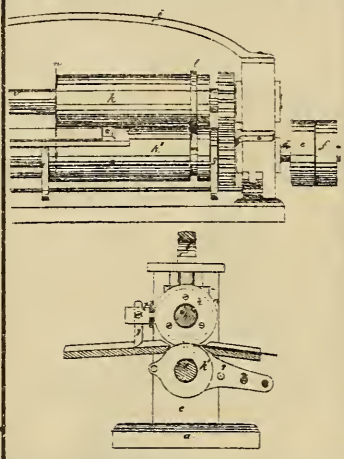

111,901. JAMES T. BARNSTEAD.
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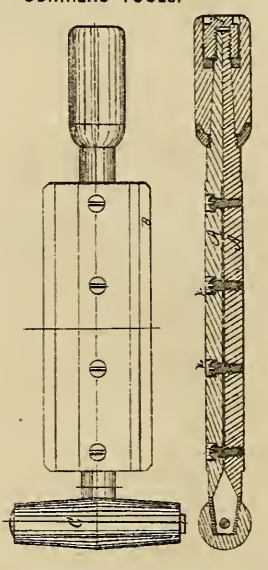

111,902. J. A. BOSTWICK.
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111,903. THOMAS S. BURNETT.
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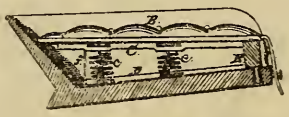
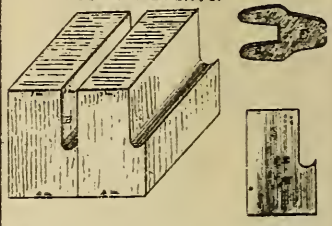


111,904. WILLIAM BUSHNELL.
WOOD PAVEMENTS.



111,905. ALBERT BYINGTON.
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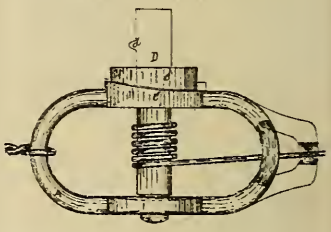

111,906. WILLIAM H. CARMAN.
RICHARD P. McCOLLUM.
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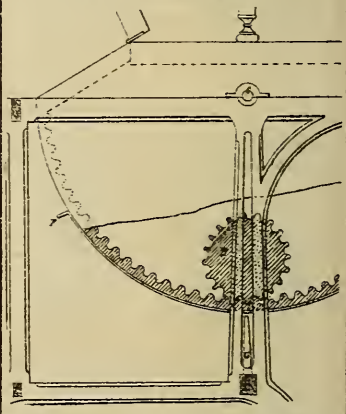

111,907. FRANKLIN B. CHAPMAN.
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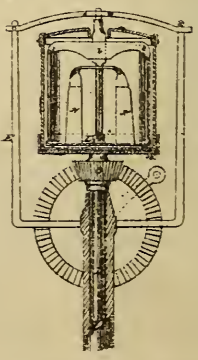

111,908. ABRM. COATES.
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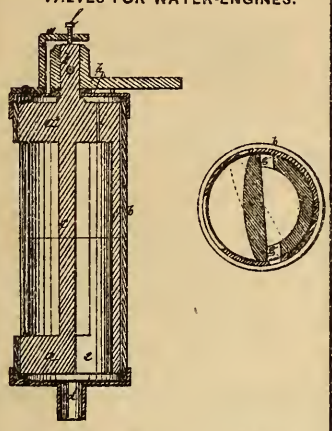
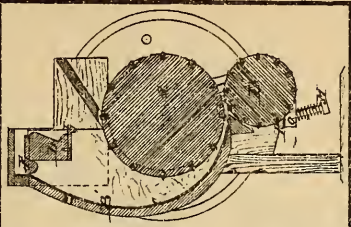
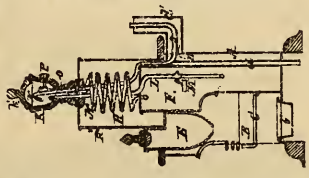




111,914. EDWARD MORTIMER DEEY.
BASE-BURNING STOVES.



111,918. EDWIN DOUDEN.
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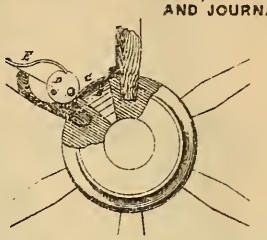

111,919. FRANCIS P. DOYLE.
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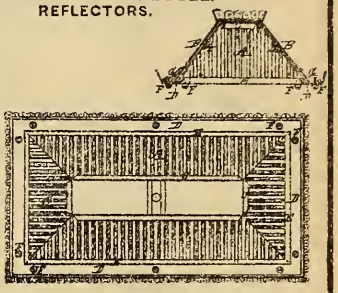

111,909. JOHN COURT.
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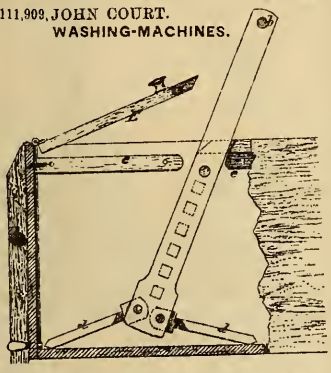

111,915. GEORGE W. DILLER.
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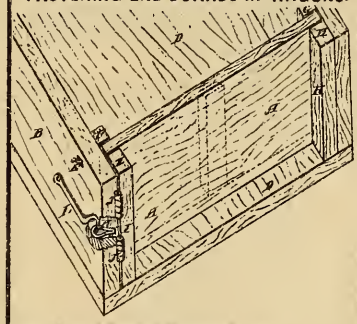
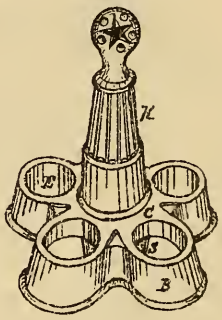


111,920. JOSIAH W. ELLS.
CRUET-STANDS.



111,910. JOHN J. CRAVEN.
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111,916. JOSEPH DILWORTH.
JOHN C. HODGINS.
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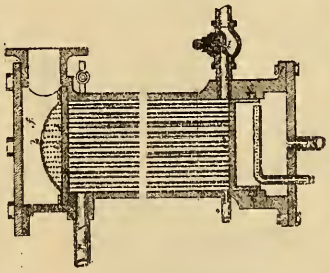
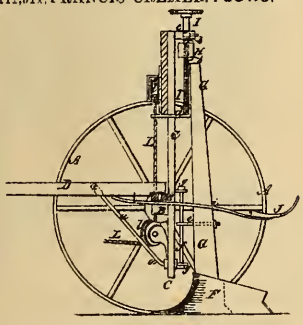
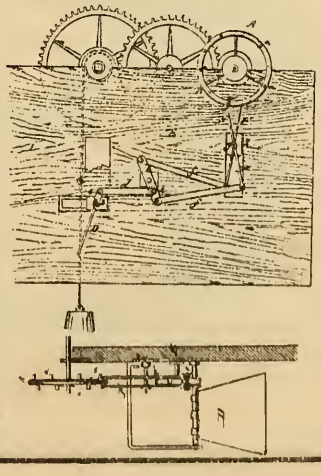


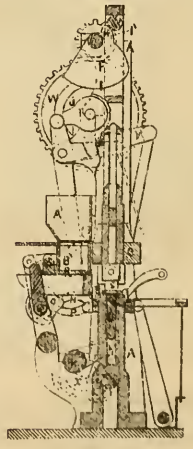
111,911. FRANCIS CREMER. PLOWS.

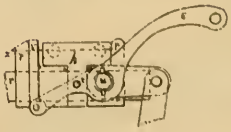


111,917. EDWARD P. DOREMUS.
FANNING-MACHINES.



111,921. JOSIAH S. ELLIOTT.
MACHINES FOR FORMING ARTIFICIAL STONE.





111,912. LEWIS CUTTING.
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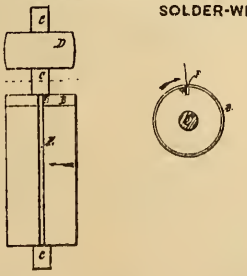

111,913. REUBEN DANIELS.
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111,922. SAMUEL ENGLISH.
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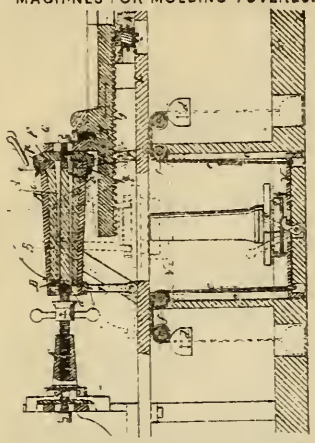

111,923. CHRISTOPHER D. FINDLAY.
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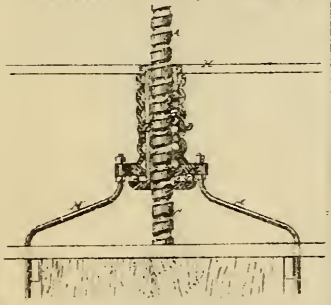

111,924. GEORGE W. GOODWYN.
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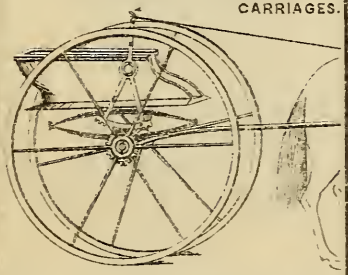

111,925. WM. GOWEN.
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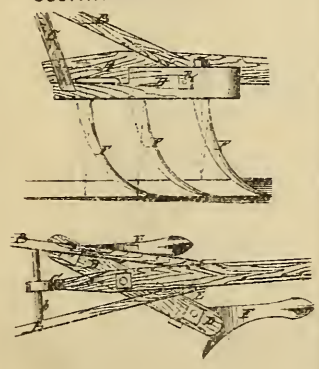

111,926. EDMUND GRIFFITH.
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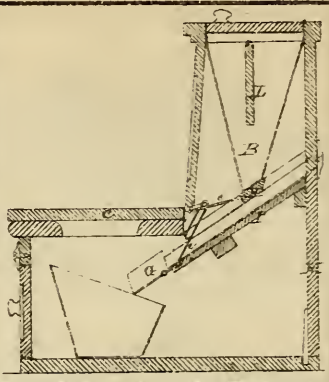
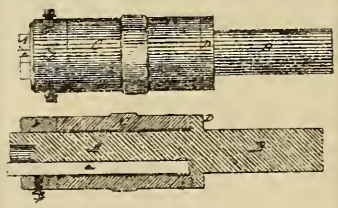


111,927. LEVI GRISWOLD. MILLING-TOOLS.



111,928. CHAUNCEY HOLMES GUARD.
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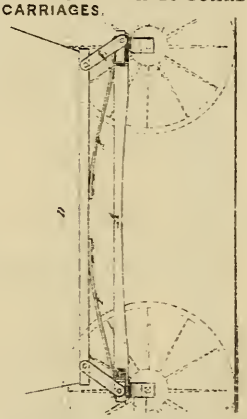

111,929. JOSEPH HACKETT.
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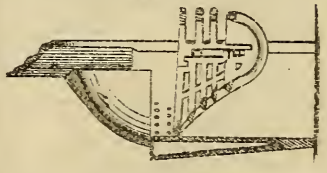

111,930. GEORGE B. HAMLIN.
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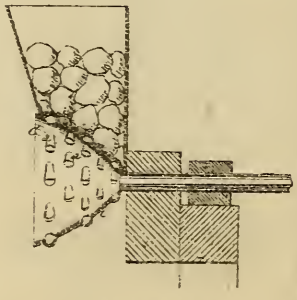

111,931. JOHN HERALD.
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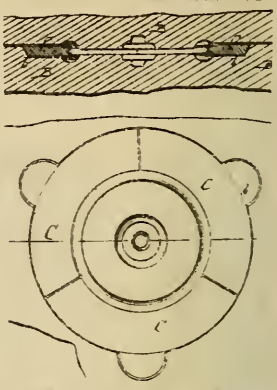

111,932. ELISHA A. HEWITT.
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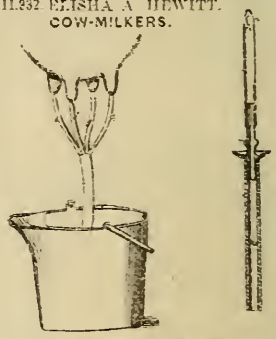

111,933. EDWARD HIPKINS.
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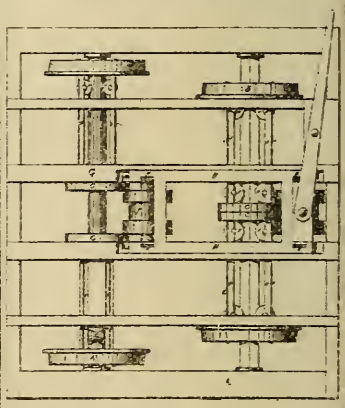
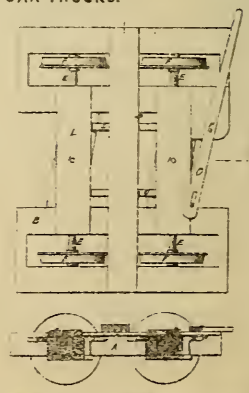


111,934. EDWARD HIPKINS.
CAR-TRUCKS.



111,935. JAMES H. HOPKINS.
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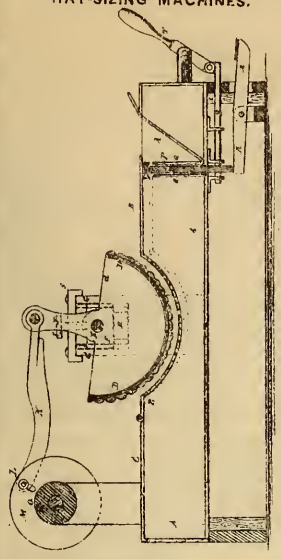
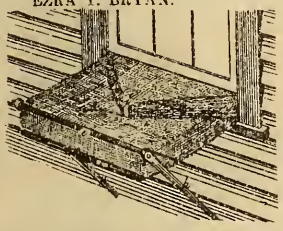
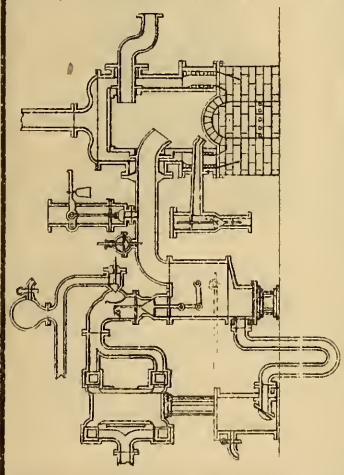


111,936. P. D. HORTON. FLY-TRAPS.
EZRA T. BRYAN.



111,937. JOHN HOUPT. STEAM-ENGINES.



111,938. CHARLES HOWARD.
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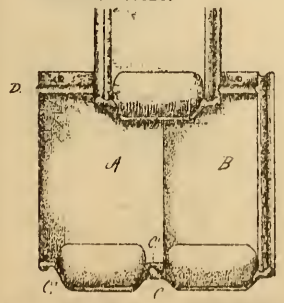

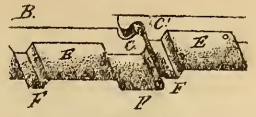

111,939. EBER HUBBARD.
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111,940. JOSEPH M. HUGHES.
ANDREW J. MAPES.
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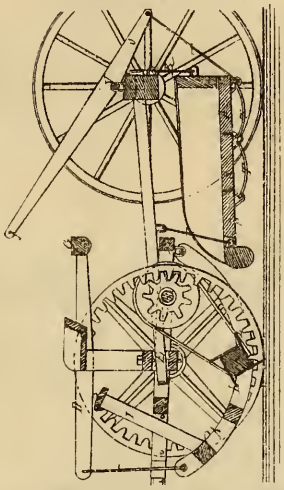
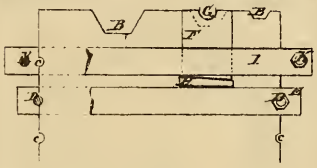
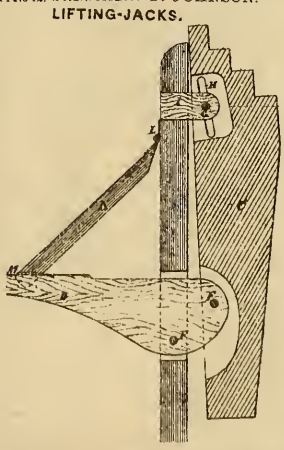


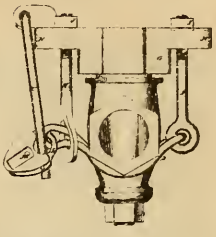
111,941. CHARLES E. HUNTER.
MACHINES FOR STRAIGHTENING BOLTS.



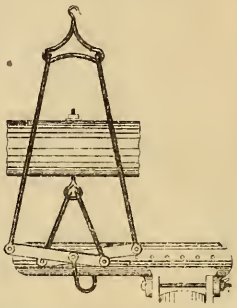
111,942. BENJAMIN F. JOHNSON.
LIFTING-JACKS.



111,943. J. EVANS JONES.
LOCK-STOP COCKS.

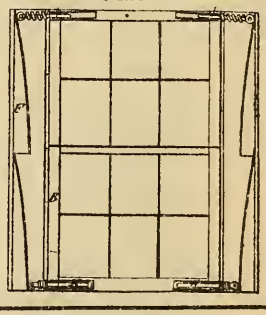


111,944. OWEN W. JONES.
DRAFT-DEVICES FOR THREE HORSES.

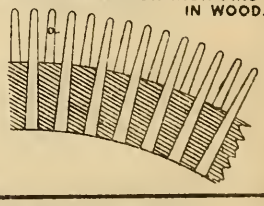


111,945. MICHAEL J. A. KEANE.
COMPOUNDS FOR PLATING AND POLISHING.

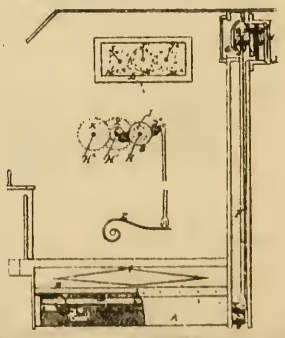
111,946. WM. HASKELL KING.
JARED ROWLAND
SASH-HOLDERS.



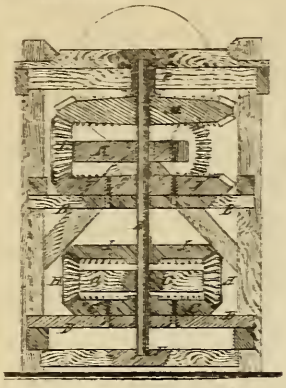
111,947. RICHARD KITSON.
SECURING STEEL OR IRON PINS IN WOOD.



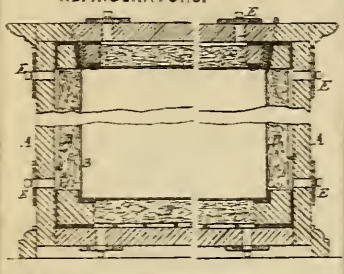
111,948. JOHN KURZ.
PASSENGER-REGISTERS FOR CARS.



111,949. DANIEL L. LAMON.
HORSE-POWERS.

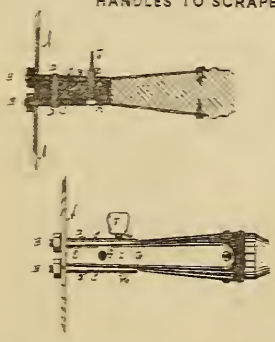


111,950. JNO. H. LESTER.
REFRIGERATORS.

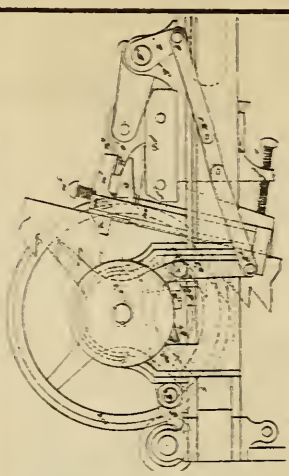


111,951. DENNIS G. LITTLEFIELD.
BASE-BURNING STOVES.

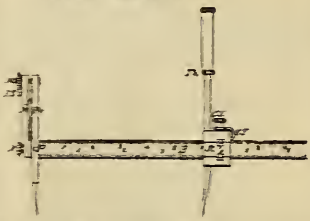
111,952. EDWARD C. LOCKE.
METHODS OF ATTACHING HANDLES TO SCRAPERS.



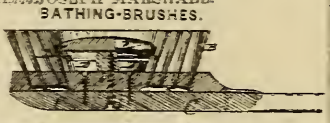
111,953. JOHN LOUGH.
SAW-TOOTH SWAGES.



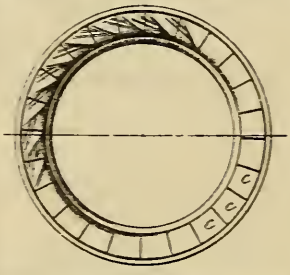
111,954. JOSIAH LYMAN.
BEAM-COMPASSES.



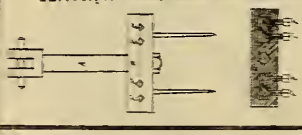
111,955. JOSEPH MARSHALL.
BATHING-BRUSHES.



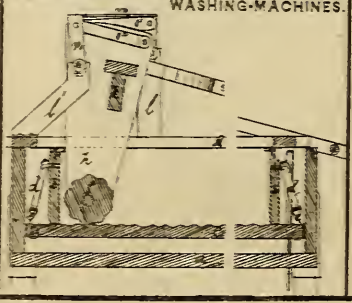
111,956. JOHN W. MASURY. MILLSTONES.



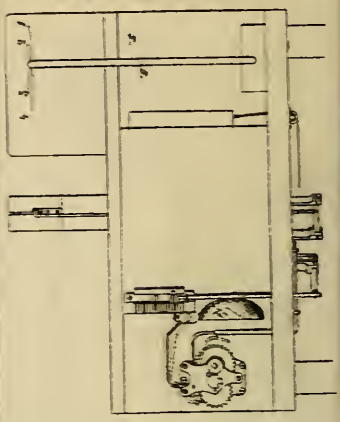
111,957. JOHN MATHEIS.
LEATHER-PUNCHING MACHINES.



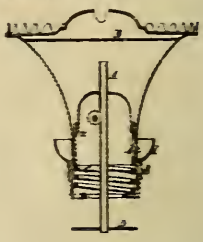
111,958. ERWIN W. MAXSON.
WASHING-MACHINES.



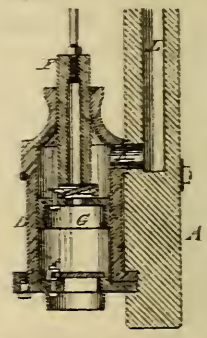
111,959. JOHN McDOWELL.
BURGLAR-ALARMS.



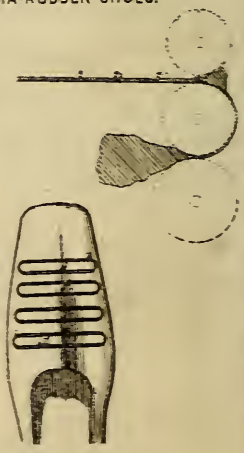
111,960. WILLIAM C. McGILL.
LAMP-BURNERS.



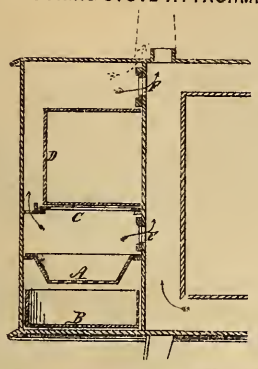
111,961. CHARLES L. MERRILL.
PUMPS.



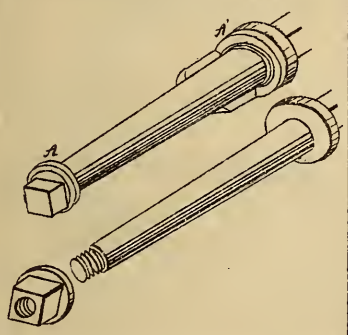
111,962. JOHN EVANS.
C. MEYER.
INDIA-RUBBER SHOES.



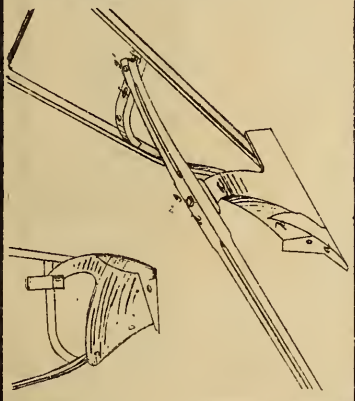
111,963, NATHAN S. MINNISS.
COOKING-STOVE ATTACHMENTS.



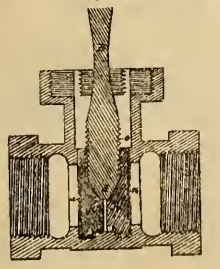
111,964, BENJAMIN MORTON.
ANTI-RATTLING WASHERS.



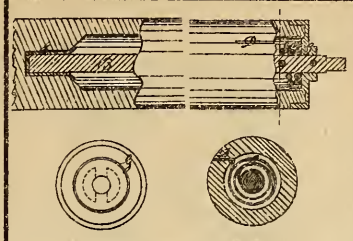
111,965, JAMES OLIVER.
PLOWS.



111,966, SAMUEL J. PEET.
DANIEL SAWYER.
DEVICES FOR GRINDING THE FLAT FACES OF VALVE-SEATS.

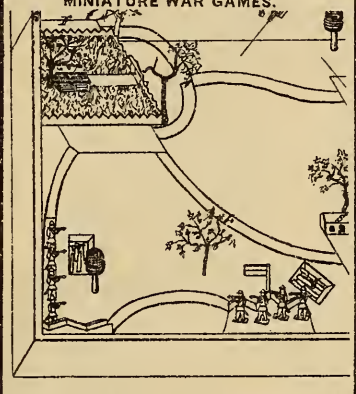


111,967, P. W. PHILLIPS.
CURTAIN-FIXTURES.



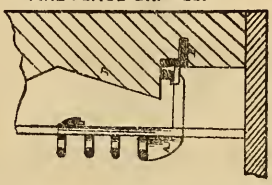
111,968, JAMES EZRA POLLARD.
FELTED FABRICS.

111,969, CASIMIRO PORTILLO.
MINIATURE WAR GAMES.

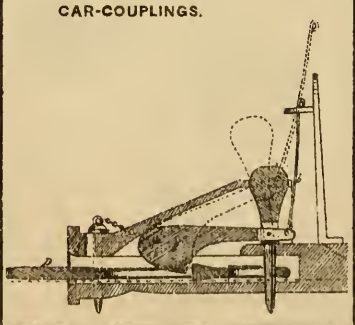


111,970, WM. PRATT.
LARD AND BUTTER BOXES.

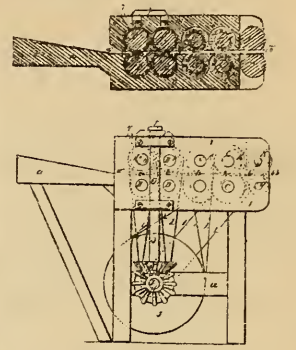
111,971, WILLIAM PULSFORT.
FIRE-PLACE GRATES.



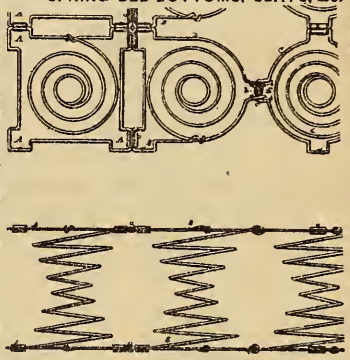
111,972, SAMUEL H. REED.
GEORGE A. REED.
CAR-COUPLINGS.



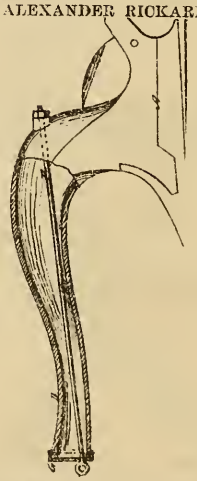
111,973, ISRAEL L. G. RICE.
MACHINES FOR BRONZING.



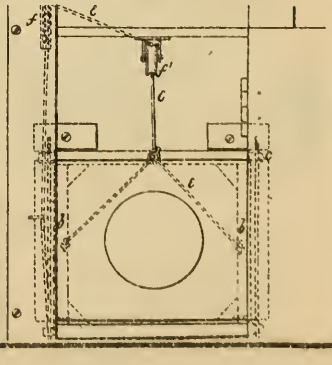
111,974, CHARLES RICH.
SPRING BED-BOTTOMS, SEATS, &c.



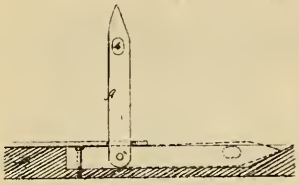
111,975, ALEXANDER RICKARD. PLOWS.



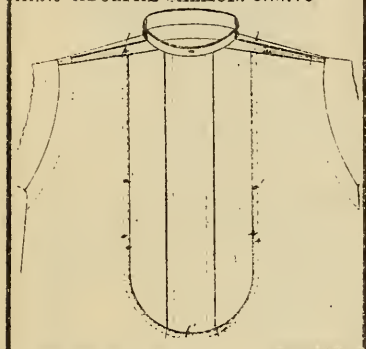
111,976, FRANK RIEDEL. PRIVIES.



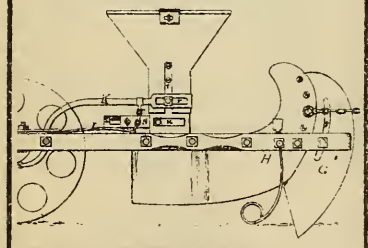
111,977. DANIEL A. RUSSELL.
IMPLEMENTS FOR SLITTING AND LOOPING RAGS FOR CARPETS.



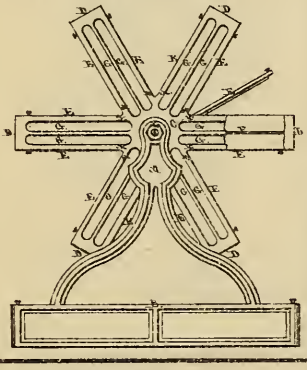
111,978 ADOLPHE SALMON. SHIRTS



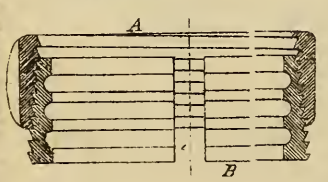
111,979. JOSEPH SCHOTT.
CORN-PLANTERS.



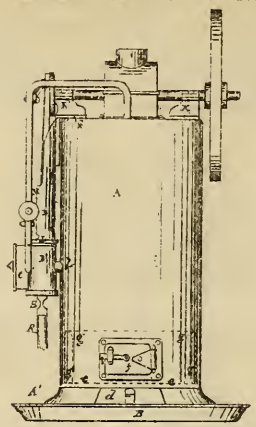
111,980 WILLIAM J. SCOTT.
REVOLVING SHOW-CASES.



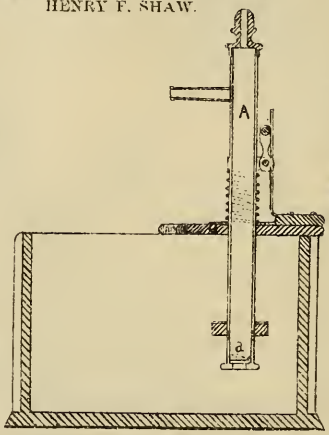
111,981, GEORGE SEWELL.
HOSE-RINGS.



111,982. JOEL SHARP.
JOSEPH W. THOMPSON.
STEAM-ENGINES.

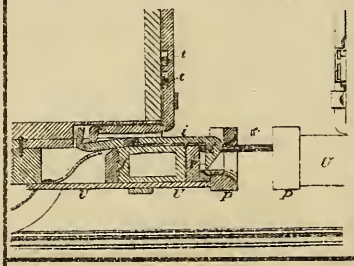


111,983. GEORGE F. SHAW. PUMPS.
HENRY F. SHAW.

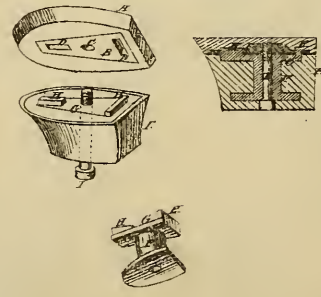


111,984 BENJ. F. SMITH.
NON-CONDUCTING MATERIALS FOR COVERING STEAM-BOILERS, &c.

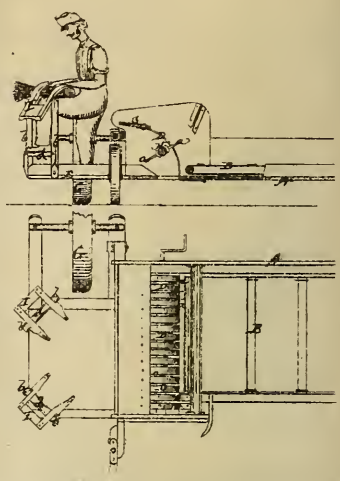
111,985. MARCUS B. SMITH.
RAILWAY-CAR COUPLINGS.



111,986. HOMER S. SMYTHE.
HEELS OF BOOTS AND SHOES.

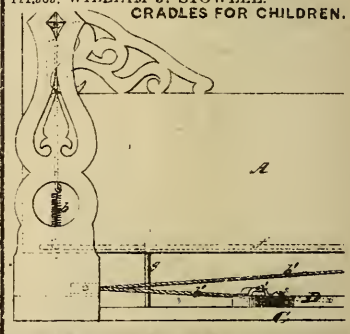


111,987. GEO. H. SPAULDING.
HARVESTERS.

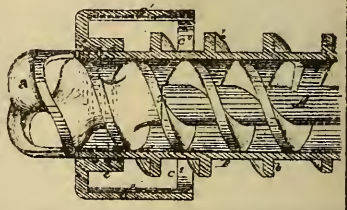


111,988. JOSEPH M. STONE.
CONSTRUCTION OF CYLINDERS FOR CARDING AND OTHER MACHINES.

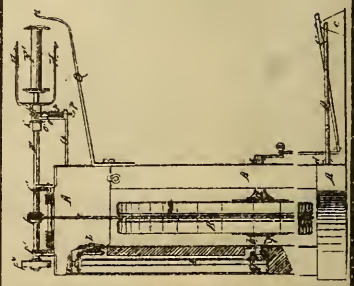
111,989. WILLIAM J. STOWELL.
CRADLES FOR CHILDREN.



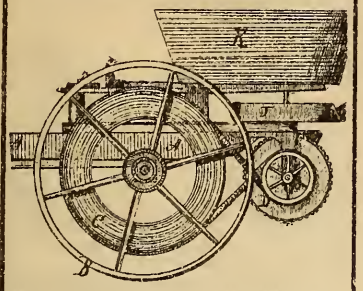
111,990. OWEN W. TOWNSEND.
COMBINED AUGERS AND REAMERS.



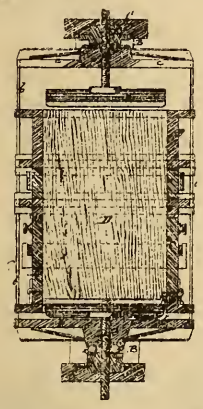
111,991. FRANZ VOEGTLI.
SPINNING-WHEELS.



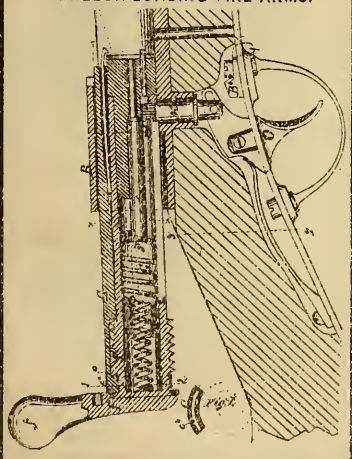
111,992. TEUNIS VREELAND. SEEDERS.



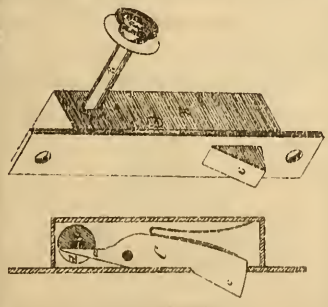
111,993. EDWIN R. WALLACE. BALING-PRESSES.



111,994. W. G. WARD. BREECH-LOADING FIRE-ARMS.

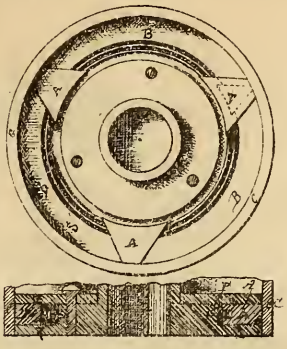


111,995. WM. M. WARREN. SASH-HOLDERS.

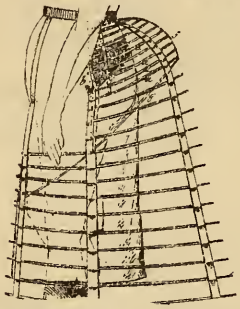


111,996. FRANK WASHBOURNE. NUT-BLANKS.

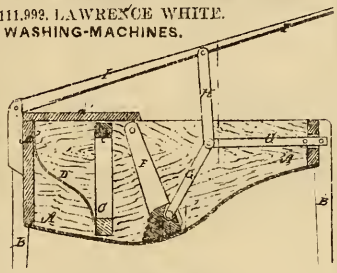
111,997. GEORGE WELLS. PISTON-PACKING.



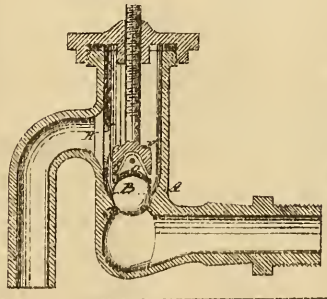
111,998. JAS. O. WEST. HOOP-SKIRTS.



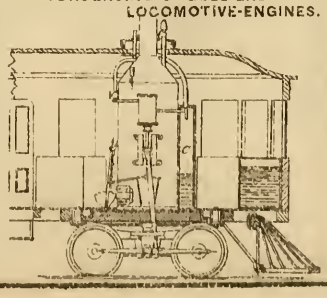
111,999. LAWRENCE WHITE. WASHING-MACHINES.



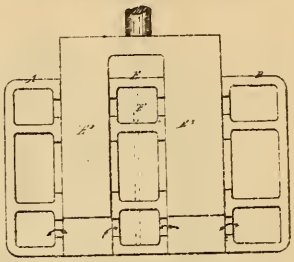
112,000. WILLIAM CROSBY WISE. JOHN ASHMAN. FAUCETS



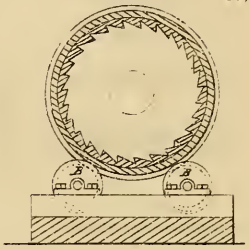
112,001. JOSEPH P. WOODBURY. CONDENSING DOUBLE-END LOCOMOTIVE-ENGINES.



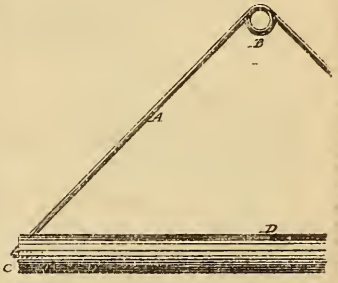
112,002. JOHN C. WOODHEAD. SLIDE-VALVES.



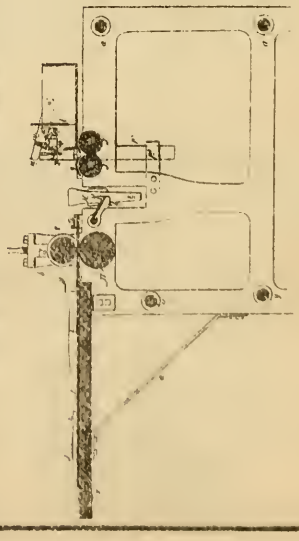
112,003. JOHN F. ALLEN. REFINING IRON, REDUCING ORES, &c.



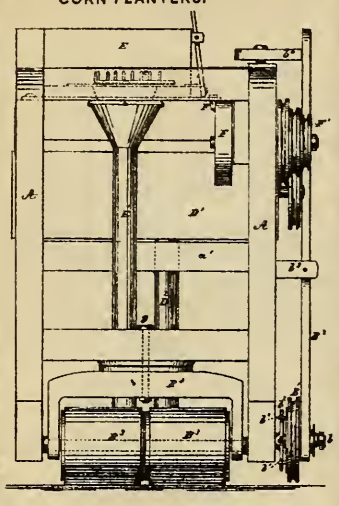
112,004. HENRY ALSOP. TOWEL-HOLDERS.



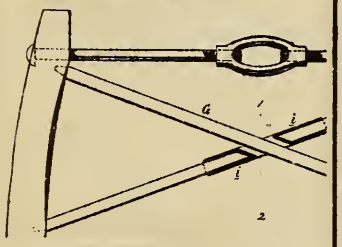
112,005. PETER EDWARD ARMSTRONG. PAPER-BAG MACHINES.



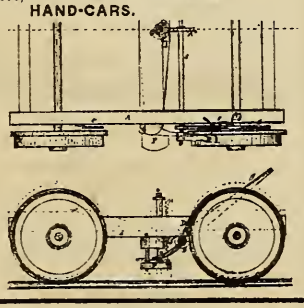
112,006. JAMES M. AITCHISON.
CORN-PLANTERS.



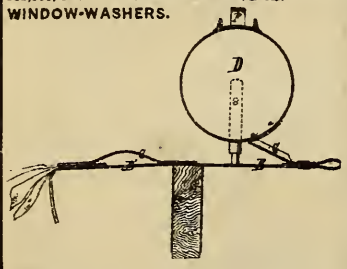
112,007, JOHN G. BAKER.
BUCK-SAW FRAMES.



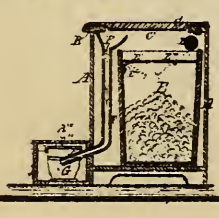
112,008, WILLIAM T. BEEKMAN.
HAND-CARS.



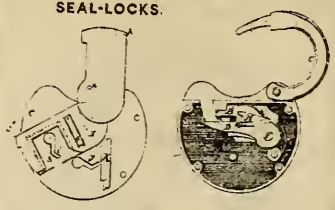
112,009, CHARLES EDWARD BELL.
WINDOW-WASHERS.



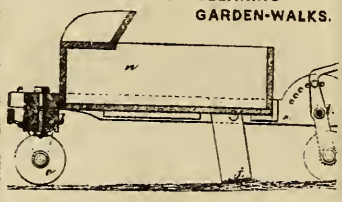
112,010, PETTER BERGQVIST.
PORTABLE WATER-CLOSETS.



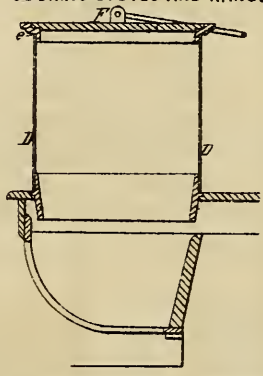
112,011, WILSON BOHANNAN.
SEAL-LOCKS.



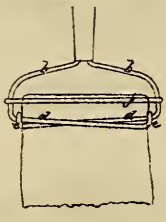
112,012, PETER BOICE.
MACHINES FOR CLEANING GARDEN-WALKS.



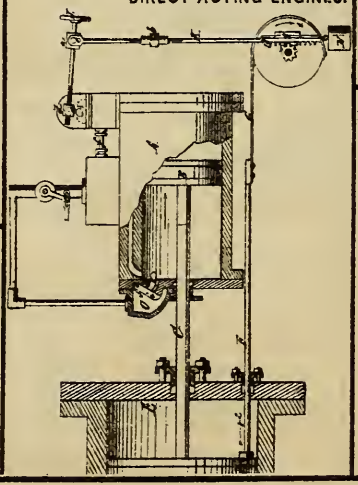
112,013, LEWIS BRIDGE.
DETACHABLE MAGAZINES FOR COOKING-STOVES AND RANGES.



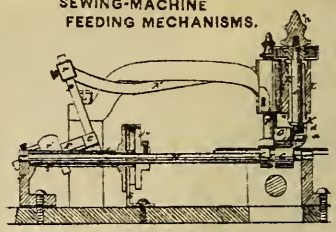
112,014, JOHN BRIZEE. MOP-HOLDERS.



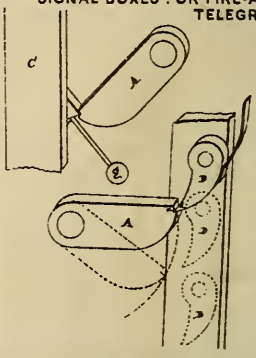
112,015, A. S. CAMERON.
VALVE-GEARS FOR DIRECT-ACTING ENGINES.



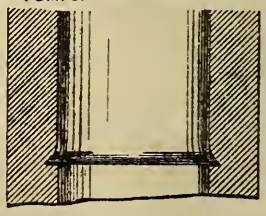
112,016, MARY P. CARPENTER.
SEWING-MACHINE FEEDING MECHANISMS.



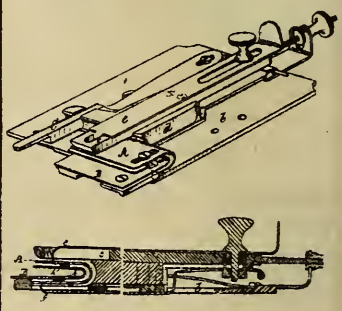
112,017 STEPHEN CHESTER.
SIGNAL-BOXES FOR FIRE-ALARM TELEGRAPHS.



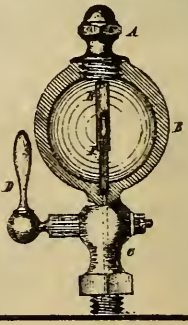
112,018, NATHAN T. COFFIN.
PUMPS.



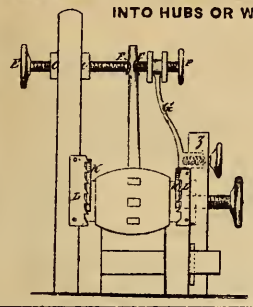
112,019, JACOB L. COLES.
BINDERS FOR SEWING-MACHINES.



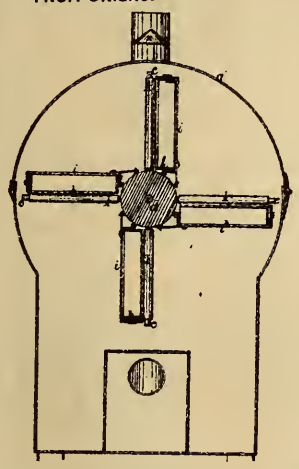
112,020, HENRY his × mark. C. DE LAND.
LUBRICATORS FOR STEAM-CHESTS.



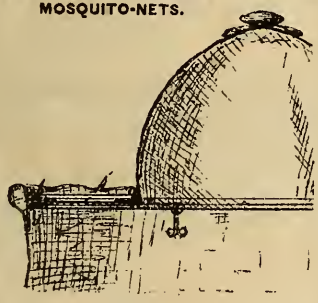
112,021, WESLEY EDWARDS.
IMPLEMENTS FOR DRIVING SPOKES INTO HUBS OR WHEELS.



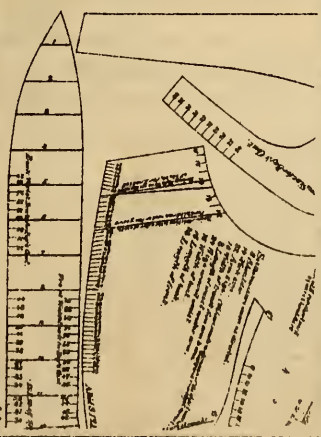
112,022, BENJAMIN F. ELLS.
FRUIT-DRIERS.



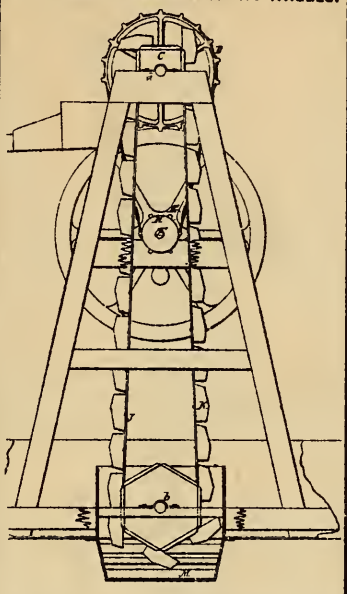
112,023, J. J. ALEXANDER ERGENZINGER.
MOSQUITO-NETS.



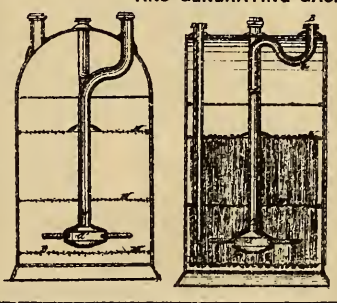
112,024, SARAH C. EWING.
PATTERNS FOR APPLYING MEASUREMENTS AND LAYING OUT GARMENTS.



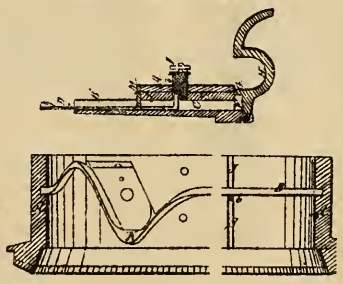
112,025, CHARLES FRIEDRICH FISHER.
FLOATING WATER-ELEVATING WHEELS.



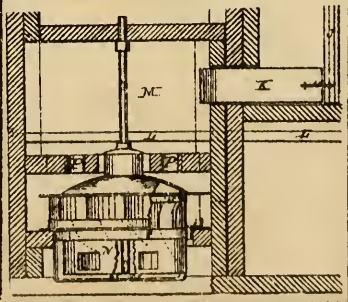
112,026, FISHER AMES FISHER.
APPARATUS FOR CARBURETING AND GENERATING GAS.



112,027, G. W. FOLTS.
JAMES L. BRANSON.
KNITTING-MACHINES.

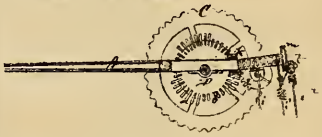


112,028, C. J. FOX.
WATER-WHEELS.

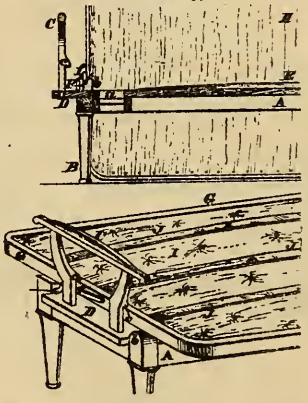


112,029, STEPHEN F. GATES.
LUBRICATORS.

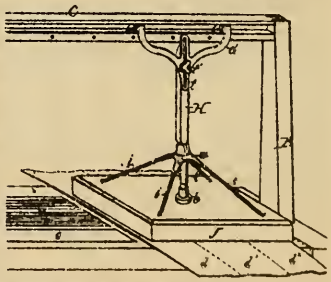
112,030, LUKE HALE.
HAY-TEDDERS.



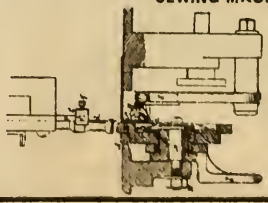
112,031, JOHN C. HALL.
LOUNGES AND BEDS.



112,032, W. H. HALSEY.
OIL-CLOTH PRINTING MACHINERY.

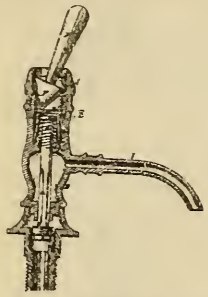


112,033, HENRY J. HANCOCK.
HOLDERS FOR NEEDLES IN SEWING-MACHINES.

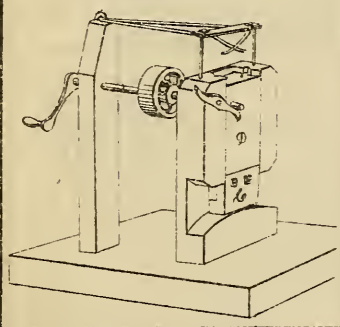


112,034. NAPOLEON B. HEAFER.
ROAD-BEDS.

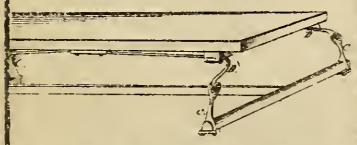
112,035. WILLIAM H. HEDGES
FAUCETS.



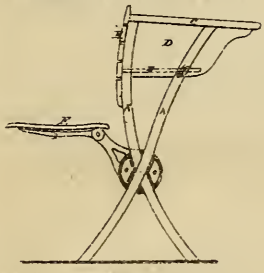
112,036. BENJ. HERSHEY.
TRIP-HAMMERS



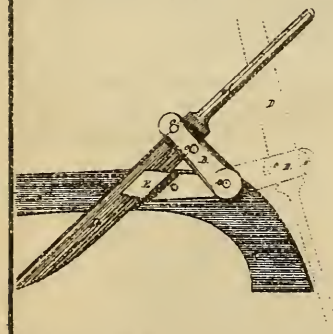
112,037. RICHARD DUDLEY.
BENJAMIN HERSHEY.
SPRINGS FOR VEHICLES.



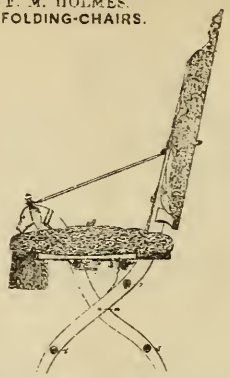
112,038. CHARLES J. HIGGINS.
SCHOOL-DESKS AND SEATS.



112,039. EPHRAIM C. HODGE.
PLOW-COLTERS.

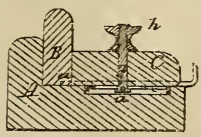


112,040. F. M. HOLMES.
FOLDING-CHAIRS.

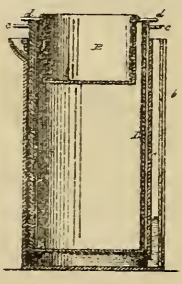


112,041. F. M. HOLMES.
FOLDING-CHAIRS.

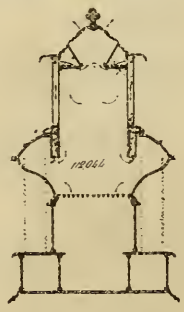
112,042. BENNET HOTCHKISS.
WINDOW-SASH LOCKS.



112,043. ORVIS D. HUDSON.
HYDROSTATIC SCALES.



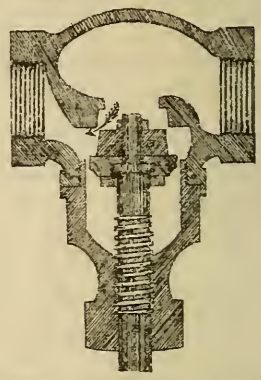
112,044. GEORGE G. HUNT.
BASE-BURNING STOVES.



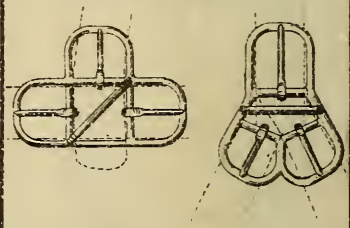
112,045. CARLETON B. HUTCHINS
MANUFACTURE OF PAPER AND LEATHER-BOARD.

112,046. ELIAS S. HUTCHINSON.
MANUFACTURE OF FLOUR.

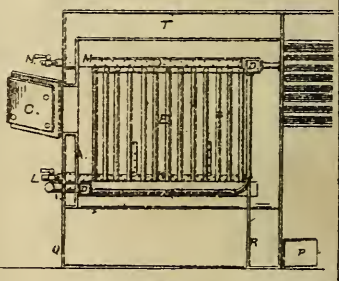
112,047. JOHN JOHNSON. VALVES.



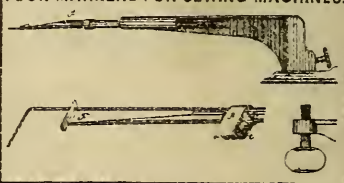
112,048. LLEWELLYN E. JONES.
THEODORE M. BARBER.
HALTER-BUCKLES AND RINGS.



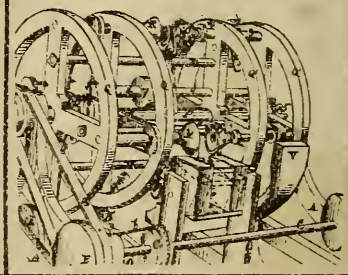
112,049. JAMES L. JUDGE.
STEAM-GENERATORS.



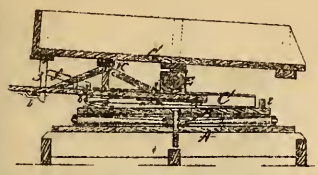
112,050. JAMES FRANKLIN KELLOGG.
TUCK-MARKERS FOR SEWING-MACHINES.



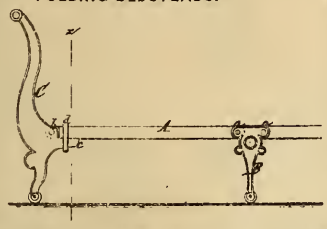
112,051. JAMES KIEVLAN. LATHES.



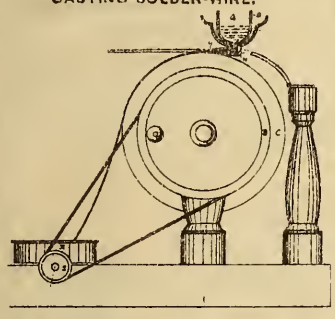
112,052, SIDNEY D. KING
DUMPING-CARS.



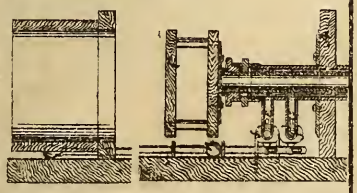
112,053. K. KRENKEL.
FOLDING-BEDSTEADS.



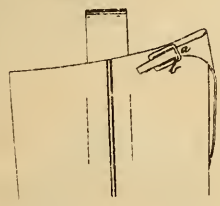
112,054.EDUARD M. LANG.
CASTING SOLDER-WIRE.



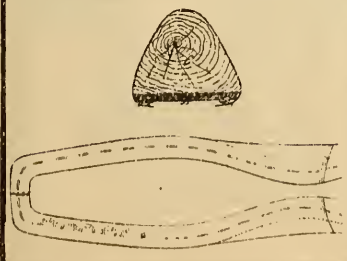
112,055. TOLBERT LANSTON
DUMB-WAITERS.



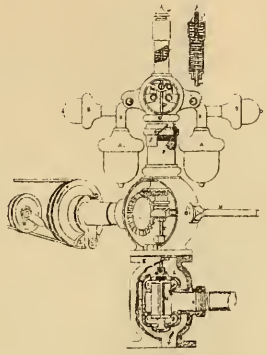
112,056 J. S. LEWIS. BOOTS.



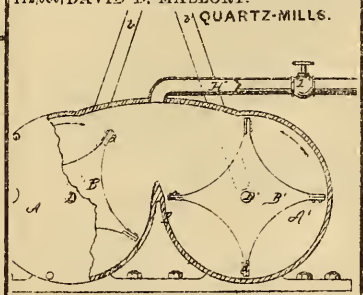
112,057. WILLIAM H. LOVEJOY.
MODES OF LASTING SHOES



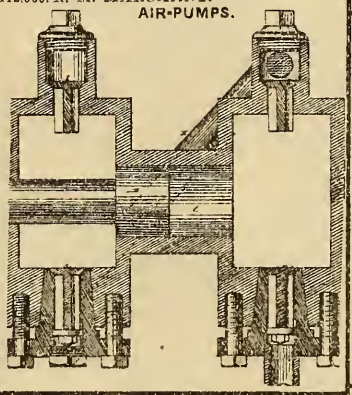
112,058. JOHN D. LYNDE.
ENGINE-GOVERNORS.



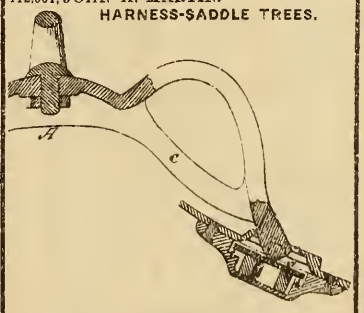
112,059, DAVID D. MALLORY.
QUARTZ-MILLS.



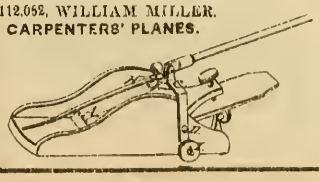
112,060. R. M. MARCHANT.
AIR-PUMPS.



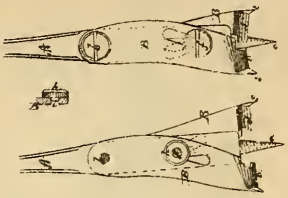
112,061, JOHN H. MARTIN.
HARNESS-SADDLE TREES.



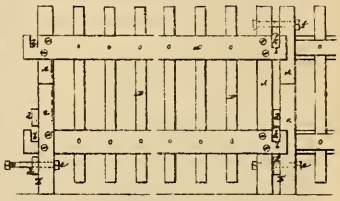
112,062, WILLIAM MILLER.
CARPENTERS' PLANES.



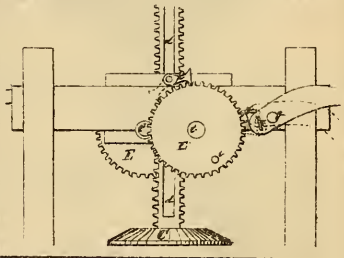
112,063. JOHN C. MILLS. AUGER-BITS.



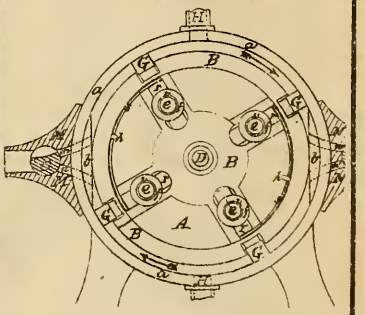
112,064, JOHN MORTON. FENCES.



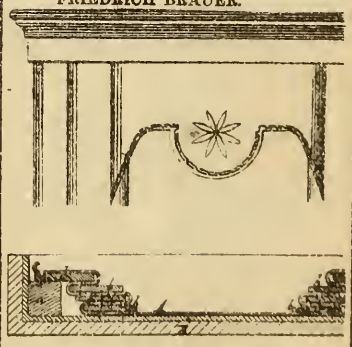
112,065. LEWIS H. MOSS.
TOBACCO, HAY, AND COTTON-PRESSES.



112,066. JOSEPH C. MOSSHOLDER.
ROTARY STEAM-ENGINES.

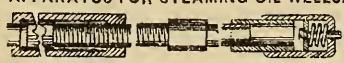


112,067, ROBERT NENNINGER. CURTAINS.
FRIEDRICH BRÄUER.

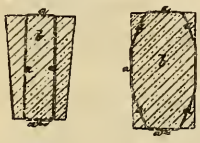


119,068. CHAS. M. NES.
MANUFACTURE OF SILICON STEEL.

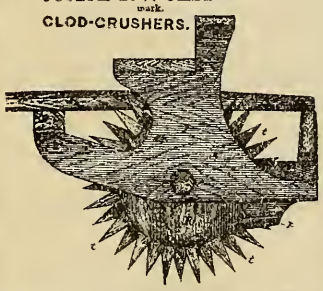
112,069. WM. NEVINS.
APPARATUS FOR STEAMING OIL-WELLS.



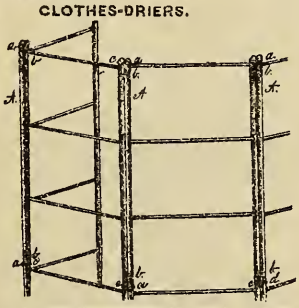
112,070. WM. HARRISON NEWTON.
BOTTLE-CORKS.



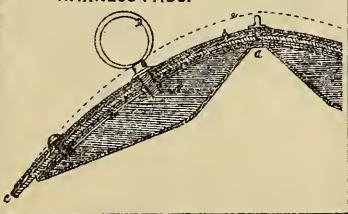
112,071. JOSEPH B. his × mark OKEY
CLOD-CRUSHERS.



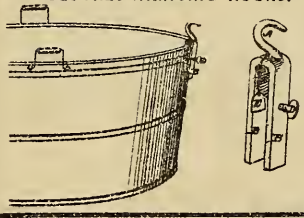
112,072. ENOS L. PARKER.
CLOTHES-DRIERS.



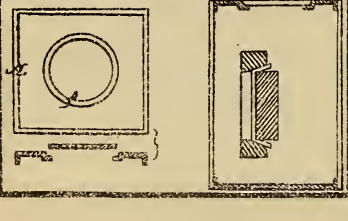
112,073. MARTIN W. POND.
HARNESS-PADS.



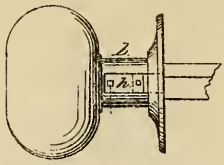
112,074. JAMES H. PRATT.
CLOTHES-WRINGING HOOKS.



112,075. WM. PRATT. PASTEBOARD-BOXES.

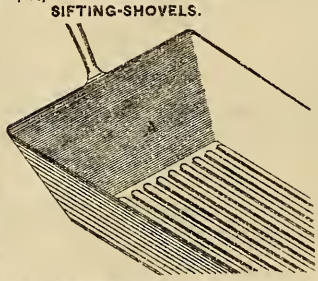


112,076. JOHNSON M. QUINBY.
A. S. DYER.
DOOR-LOCKS.

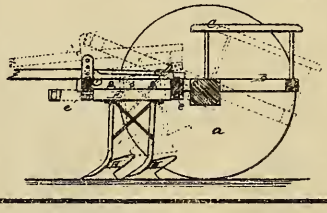


112,077. HENRY G. REED.
MODES OF MANUFACTURING GOLD, SILVER, OR PLATED-WARE.

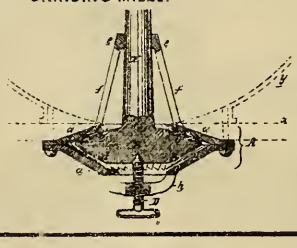
112,078. THOMAS F. ROONEY.
SIFTING-SHOVELS.



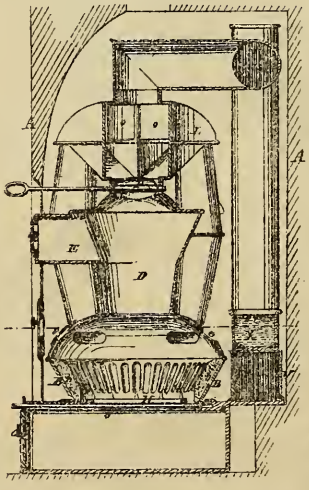
112,079. ORESTES SAMPSON.
COMBINED GANG-PLOWS AND CULTIVATORS.



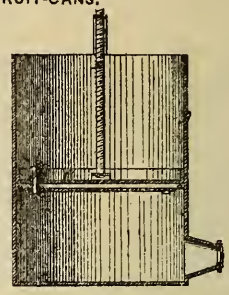
112,080. GEORGE SELSOR.
GRINDING-MILLS.



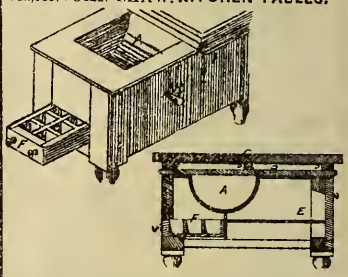
112,081. SAMUEL B. SEXTON
HOT-AIR FURNACES.



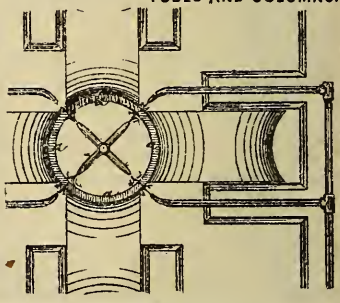
112,082. JOSEPH S. SHANEMAN.
JOSEPH S. HOON.
FRUIT-CANS.



112,083. JOHN SHAW. KITCHEN-TABLES.

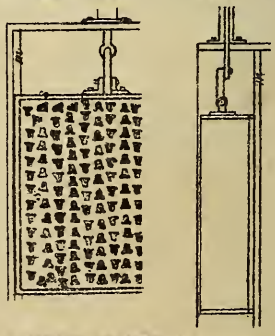


112,084. FREDERICK H. SMITH.
MANUFACTURE OF METAL TUBES AND COLUMNS.

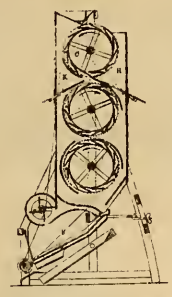


112,085. HOWARD SMITH.
JAMES POTTER.
SPRING BED-BOTTOMS.

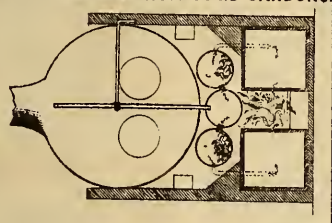
112,086. STEPHEN N. SMITH.
SOLOMON W. YOUNG.
DEVICES FOR SEPARATING EYELETS.



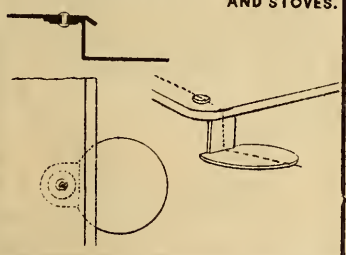
112,087, JAY STERNBERG.
GRAIN-CLEANING MACHINES.



112,088, LEVI STEVENS.
PRODUCING GAS FROM SOLID CARBONS.

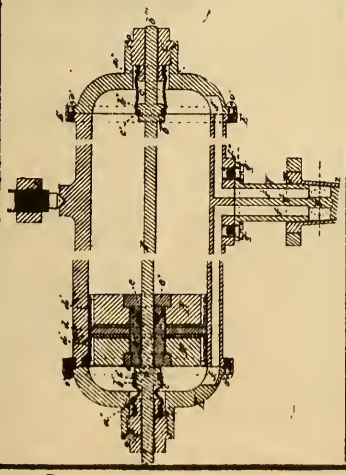


112,089, DAVID STUART.
ATTACHMENTS FOR RANGES AND STOVES.



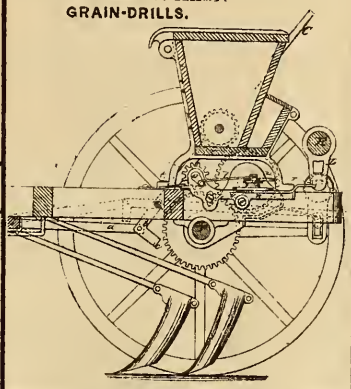
112,090, EZRA H. STUART.
WALTER A. STUART.
CHEESE-VATS.

112,091, WILLIAM G. STUART.
LIQUID METERS.

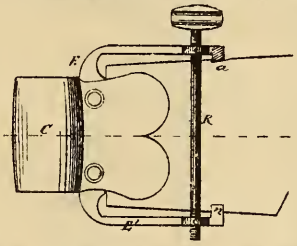


112,092, LEVI B. TARBOX.
MEAT-TENDERERS.

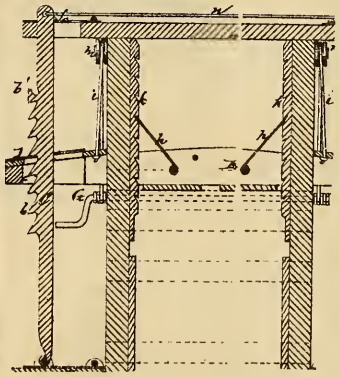
112,093 JOHN H. THOMAS.
PHINEAS P. MAST.
GRAIN-DRILLS.



112,094, E. W. TILTON.
HANDLES FOR CROSS-CUT SAWS.



112,095, GABRIEL UTLEY.
COTTON-PRESSES.



112,096, AMOS VERBECK.
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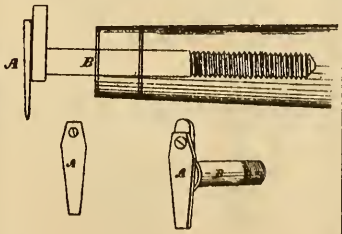
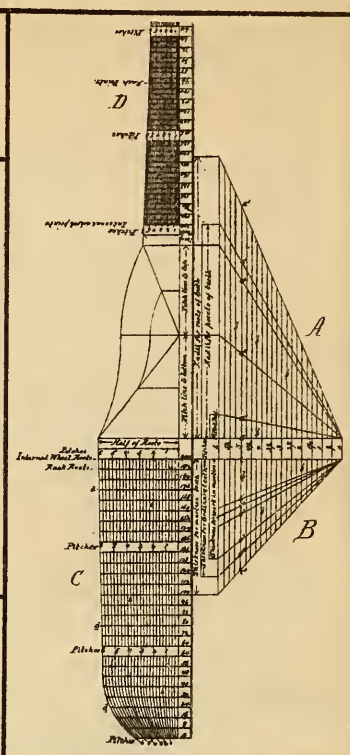


112,097, JOHN WALKER.
PROPORTIONAL SCALES FOR THE CONSTRUCTION OF TOOTHED GEAR.



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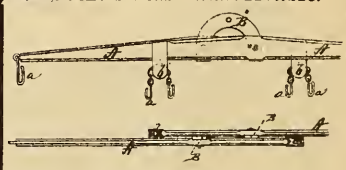
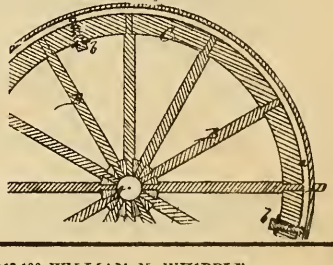
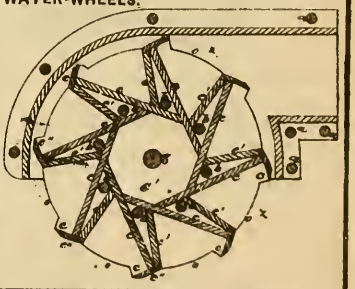


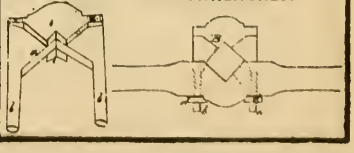
112,099, JAMES WEATHERS.
WHEELS FOR VEHICLES.



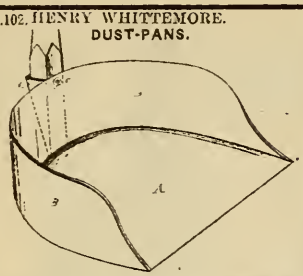
112,100, WILLIAM N. WHIPPLE.
WATER-WHEELS.



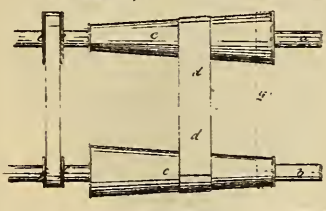
112,101 ROLLIN WHITE. WRENCHES.



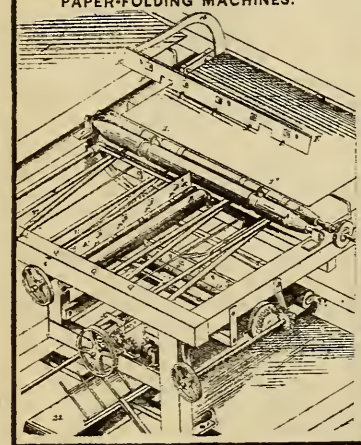
112,102. HENRY WHITTEMORE.
DUST-PANS.



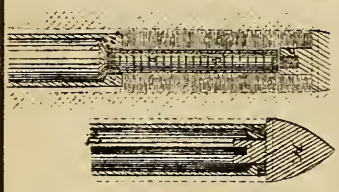
112,103. ALFRED WILCOCK.
RICHARD ROBINSON.
FREDERICK WILCOCK.
DRIVING MECHANISMS FOR ROVING, SLUBBING, AND OTHER MACHINES.



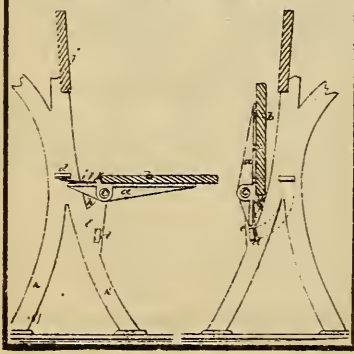
4,266. CYRUS CHAMBERS, JR
PAPER-FOLDING MACHINES.



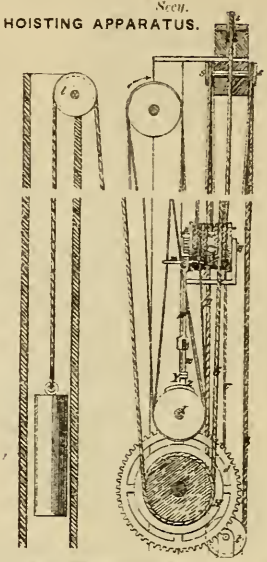
4,267 JOHN H. DUCK.
ELIAS K. WHITCOMB.
PIPES AND FIXTURES FOR WELLS.



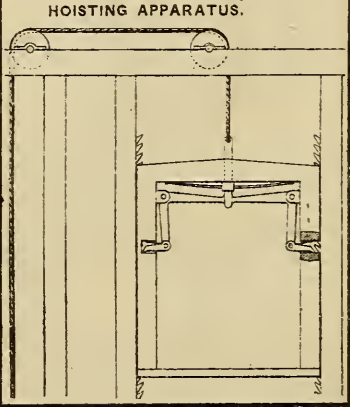
4,268. GEORGE W. HILDRETH.
SEATS FOR SCHOOL-DESKS.



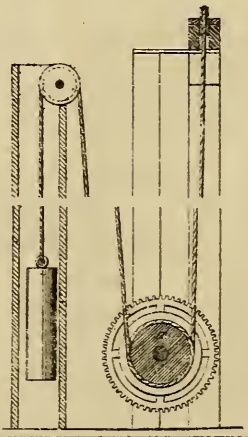
4,269. CHAS. R. OTIS, *Prest.*
JOHN L. HUBBARD, *Secy.*
HOISTING APPARATUS.



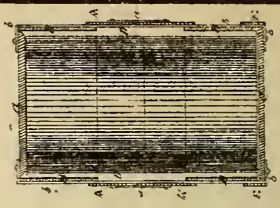
4,270. CHAS. R. OTIS, *President.*
JOHN L. HUBBARD, *Secretary.*
HOISTING APPARATUS.



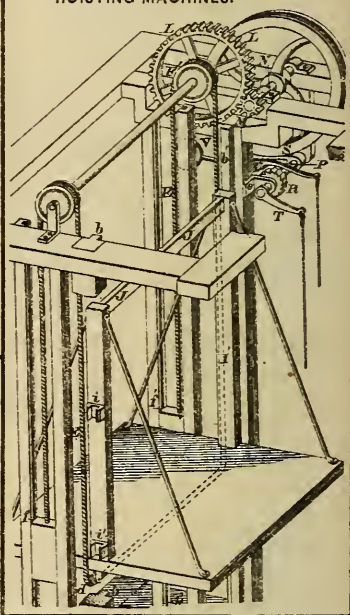
4,271. CHAS. R. OTIS, *Prest.*
JOHN L. HUBBARD, *Secy.*
HOISTING APPARATUS.



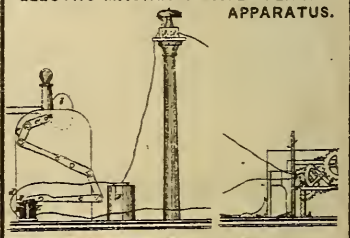
4,272. HENRY G PORTER.
BARRELS.



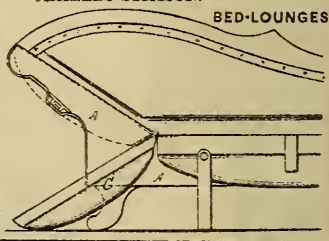
4,273. HENRY J. REEDY.
HOISTING-MACHINES.



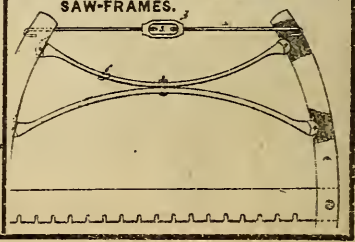
4,274. WILLIAM ROBINSON.
ELECTRO-MAGNETIC GATE-OPENING APPARATUS.



4,275. JAMES SEYMOUR, *As Adm of* WM. H. COLLEY, *deceased.*
WILLIAM H. COOLIDGE.
CHARLES STIMSON.
BED-LOUNGES.



4,276. BISSELL & MOORE MANUFG. CO.,
SAW-FRAMES.



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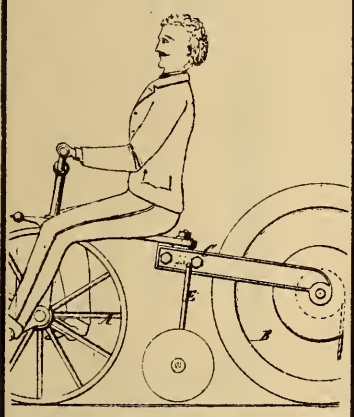
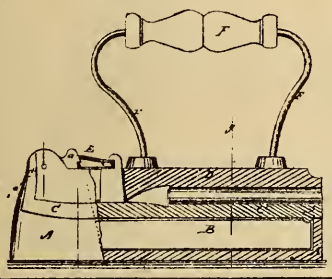
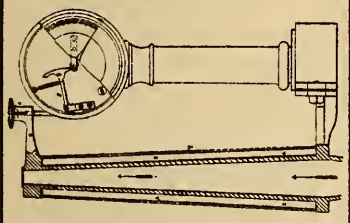
112,104 ARTHUR M. ALLEN.
TOY PROPELLERS



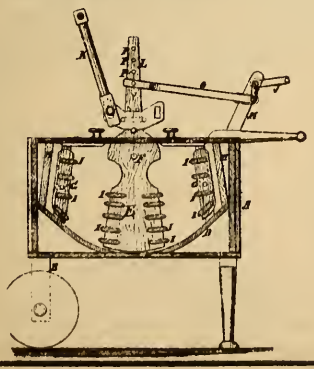
112,105. CHARLES ANDERSON
SAD AND CRIMPING-IRONS.



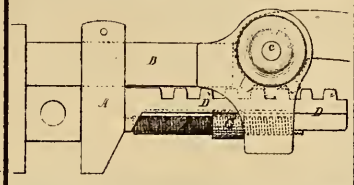
112,106. WILLIAM C. BAIN.
JOHN J. KENDALL.
PYROMETERS.



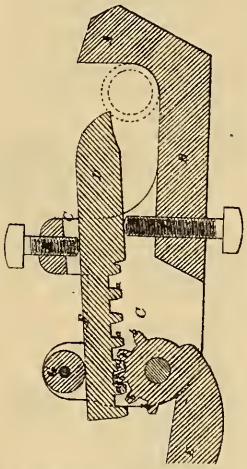
112,107. WILLIAM HENRY BAILEY.
WASHING-MACHINES.



112,108. ELIAS BEACH.
WRENCHES.



112,109. ELIAS BEACH.
WRENCHES.



112,110. THEOPHILUS BEEBE.
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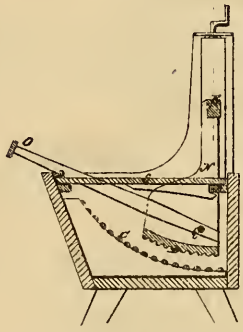
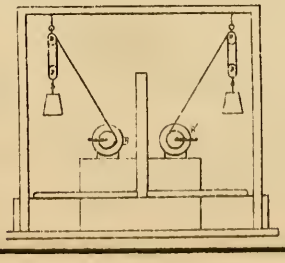
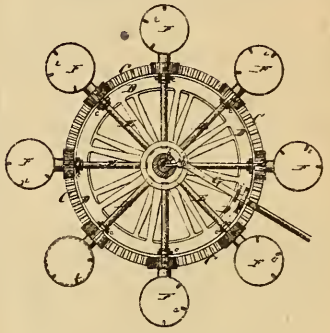


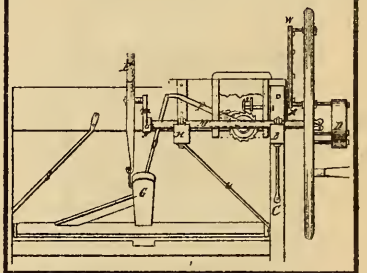
112,111. ALEXANDER DALRYMPLE BELL.
APPARATUS FOR CARBURETING AIR.



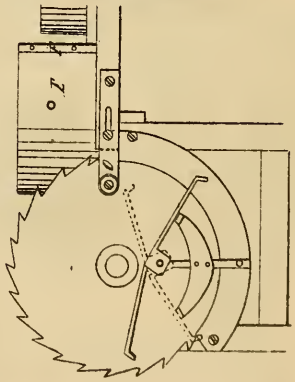
112,112 JOHN Q. BLACK.
CHEESE-TURNING APPARATUS.



112,113. BENGT C. BLOMSTEN.
STRAW-CUTTERS.



112,114. N. H. BOLTON.
SAWING-MACHINES.



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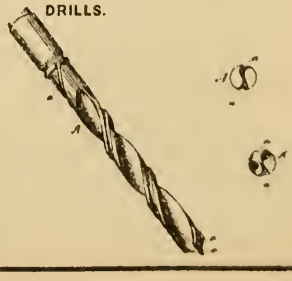
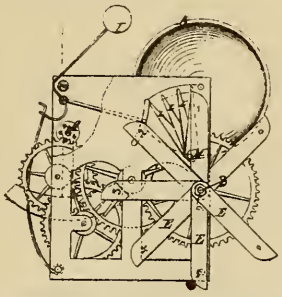
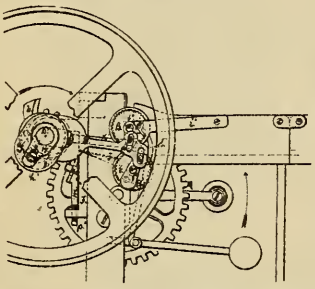
DRILLS.



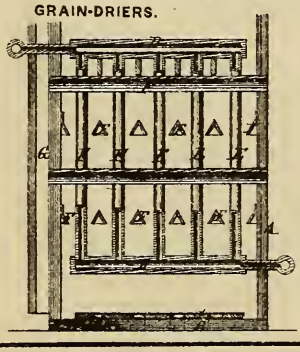
112,116 DAVID L. BRANNING.
ODOMETERS.



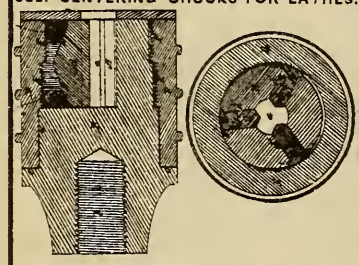
112,117. HENRY A. BUCK.
FEED-CUTTERS.



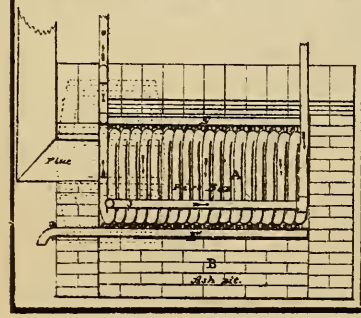
112,118. JOHN BUCKINGHAM.
GRAIN-DRIERS.



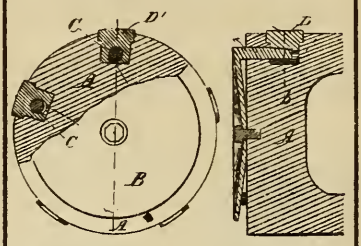
112,119. JOHN BUCKINGHAM.
SELF-CENTERING CHUCKS FOR LATHES.



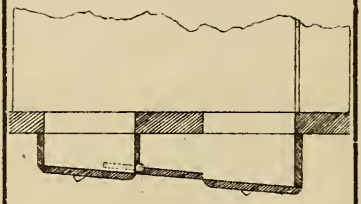
112,120. DAVID H. BURRELL.
APPARATUS FOR HEATING LIQUIDS.



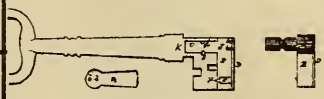
112,121. JOHN G. BUTLER.
PROJECTILES FOR ORDNANCE.



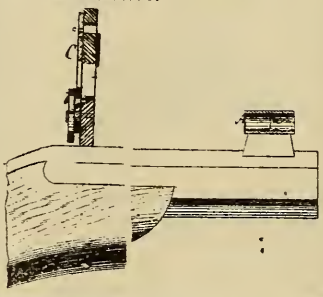
112,122. BENJAMIN F. CAMPBELL.
HOT-AIR FURNACES.



112,123. CHARLES C. CARPENTER.
DOOR-KEYS.

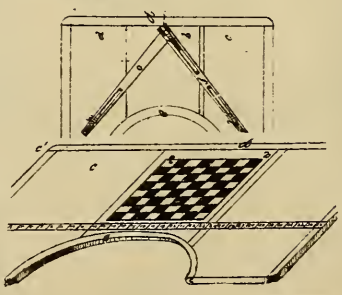


112,124. FREDERIC A. CHURCHILL.
GUN-SIGHTS.

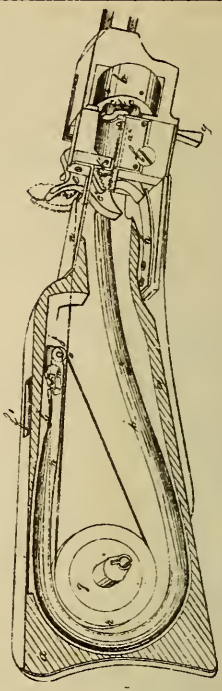


112,125 THEODORE COLSTON.
SHUTTLES FOR SEWING-MACHINES.

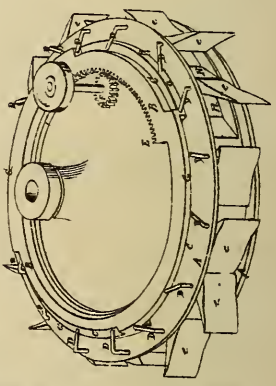
112,126. DANIEL P. COOK.
LAP-BOARDS.



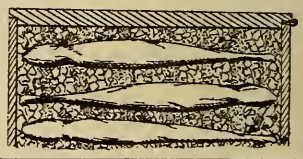
112,127. JOSHUA DAVIS.
MAGAZINE FIRE-ARMS.



112,128. WALTER S. DAVIS.
WATER-WHEEL CURBS.

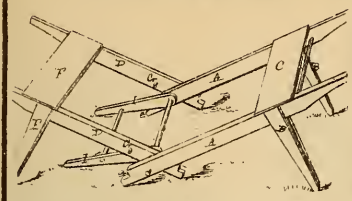


112,129. SAMUEL H. DAVIS.
DAVID W. DAVIS.
PRESERVING FISH BY FREEZING.

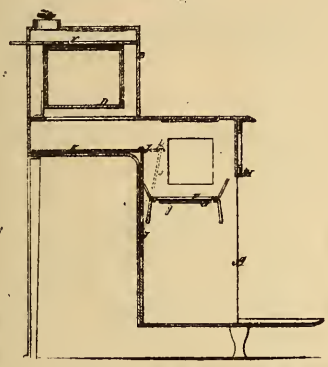


112,130. FRANK PHILLIP DEVENPORT.
MEADOW-CULTIVATORS.

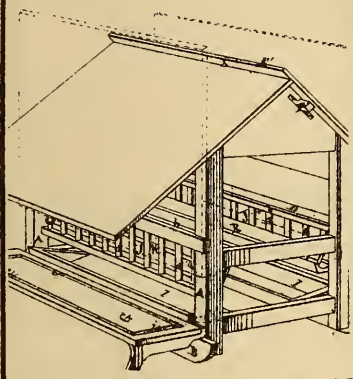
112,131. JOEL E. DRAPER.
CORN-HUSKING BENCHES.



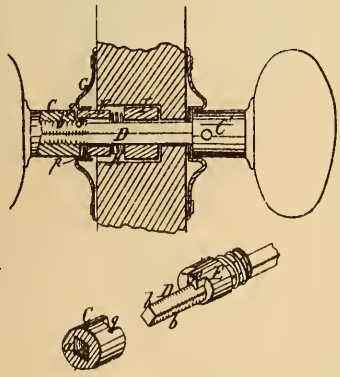
112,132, LEMUEL DUNHAM.
COOKING-STOVES.



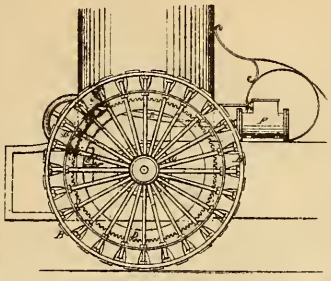
112,133. EDWIN FARQUHAR.
PORTABLE FEED-RACKS.



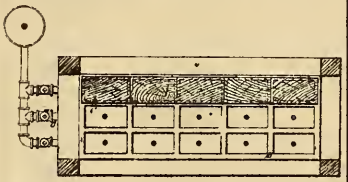
112,134. WM. A. FENN.
ATTACHING KNOBS TO THEIR SPINDLES.



112,135 GEORGE W. FITTS.
TRACTION-ENGINES.

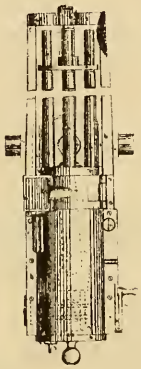


112,136. EDGAR M. FOWLER.
PRESERVING BLOCKS OF WOOD.

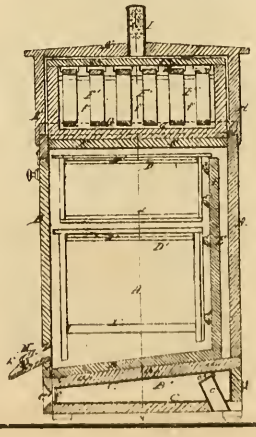


112,137. JOSEPH R. FRICKE.
LIGHTNING-RODS.

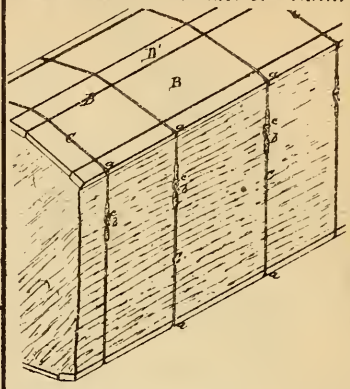
112,138. RICHARD J. GATLING.
REVOLVING BATTERY GUNS.



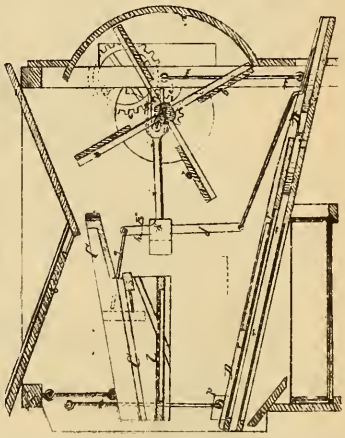
112,139. JOSEPH H. GISLER. BEE-HIVES.



112,140, WILLIAM HADWIN.
BALING SHORT-CUT HAY OR STRAW.

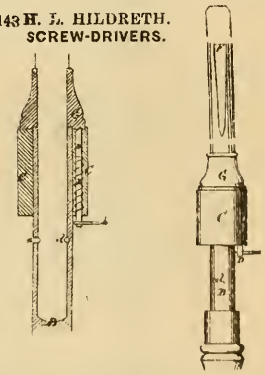


112,141, SAMUEL S. HAMMOND.
JOHN S. PADEN.
GRAIN-SEPARATORS AND FANNING-MILLS.

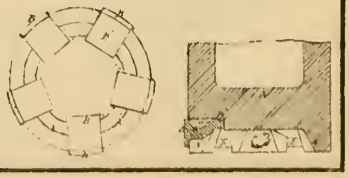


112,142. HART HARRIS.
EXTRACTORS FOR OIL-WELLS.

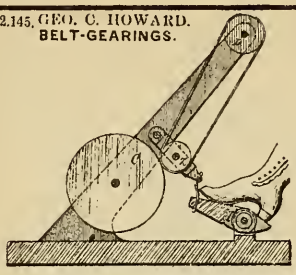
112,143 H. L. HILDRETH.
SCREW-DRIVERS.



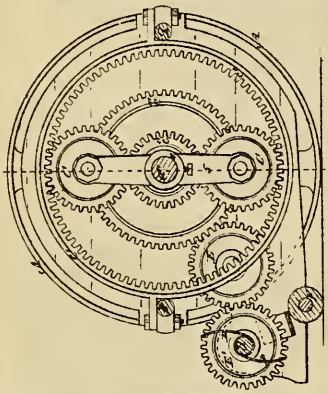
112,144. B. B. HOTCHKISS.
PROJECTILES FOR ORDNANCE.



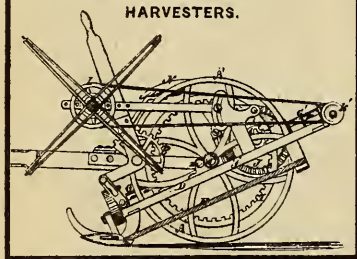
112,145, GEO. C. HOWARD.
BELT-GEARINGS.



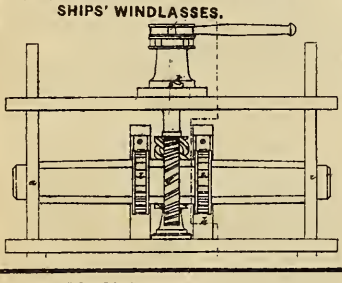
112,146. AMER INGRHAM LAWN-MOWERS.



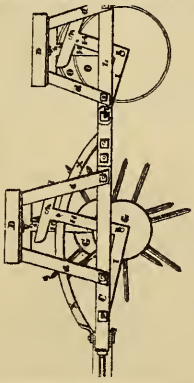
112,147, ISAAC A. JOHNSON.
HARVESTERS.



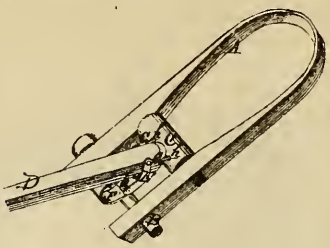
112,148, CHRISTOPHER COATSWORTH JORDESON.
SHIPS' WINDLASSES.



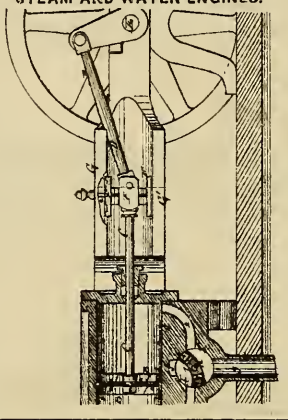
112,149, ABRAHAM S. KEAGY.
HARROWS AND FIELD-ROLLERS.



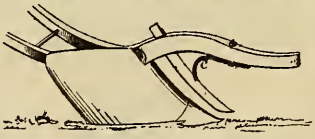
112,150, LEWIS KELLEY. ANIMAL-POKES.



112,151, HENRY JAMES KING.
DANIEL CHARLES MULOCK.
STEAM AND WATER-ENGINES.



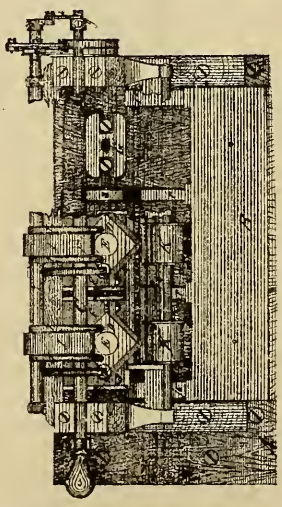
112,152, JESSE KINNEY.
STUBBLE ATTACHMENTS FOR PLOWS.



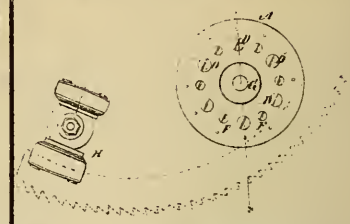
112,153, SOLOMON W. KIRK.
SEPARATING METALS FROM ORES.

112,154, C. J. H. F. KLEEMANN.
COMPOSITIONS FOR POLISHING.

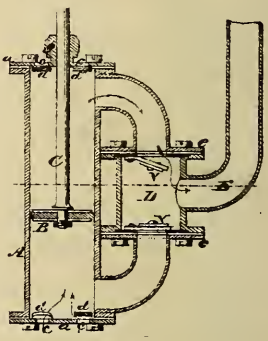
112,155 CHARLES LANG.
MACHINES FOR PATCHING, PUNCHING, AND EMBOSSING BUTTON-HOLES OF PAPER-COLLARS.



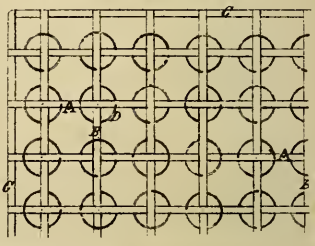
112,156, GEORGE W. LOMBARD.
SAWING-MACHINES.



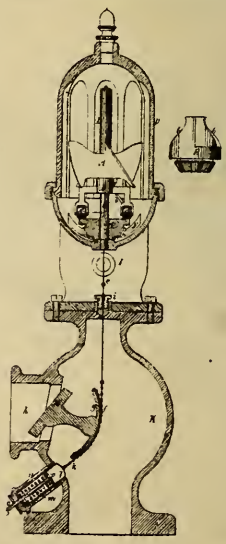
112,157, DAVID LOOMIS.
JOY WINTERS.
ALBERT STARK.
PUMPS.



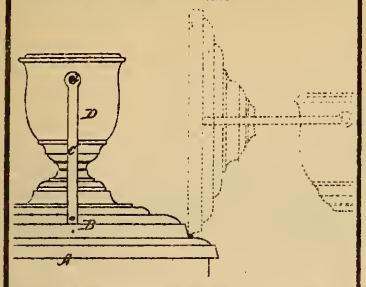
112,158, JOSEPH E. LORD.
SPRING BED-BOTTOMS.



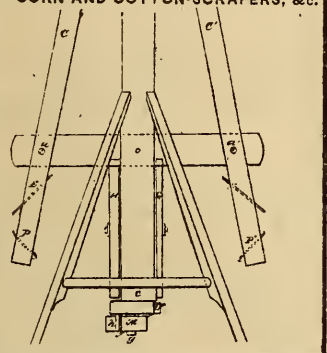
112,159, J. AUGUSTUS LYNCH.
GOVERNORS FOR STEAM-ENGINES.



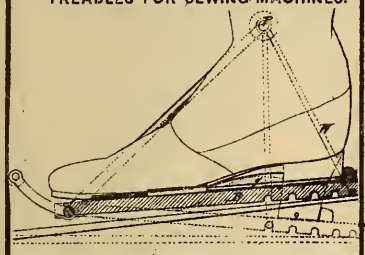
112,160, ORVILLE F. MACK.
URNS FOR STOVES.



112,161 CYRUS MARSH, 2D.
CORN AND COTTON-SCRAPERS, &c.

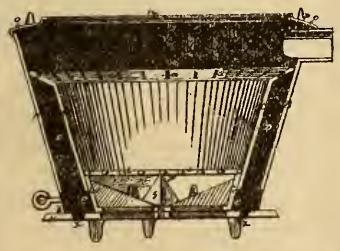


112,162, FRANCIS E. MILLS.
TREADLES FOR SEWING-MACHINES.

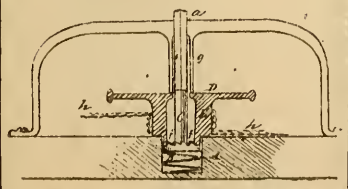


112,163, WILLIAM MILLS.
EXPLOSIVE COMPOUNDS.

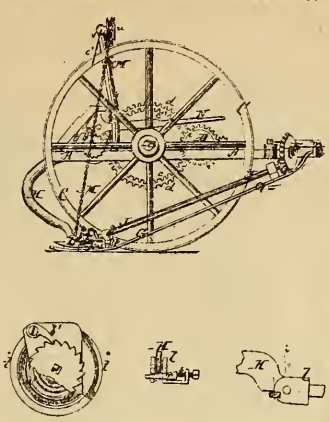
112,164, D. B. MONTAGUE.
PORTABLE FURNACES.



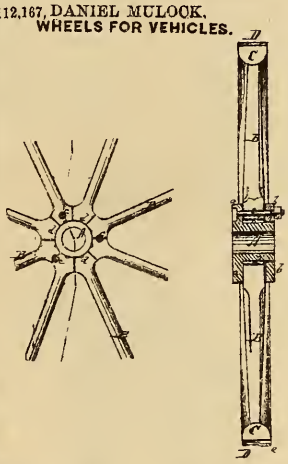
112,165, CHARLES C. MOORE.
PORTABLE BOOK-HOLDERS.



112,166, DANIEL MULOCK. HARVESTERS.

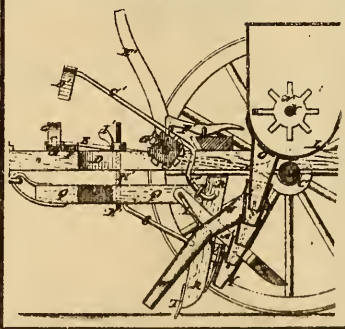


112,167, DANIEL MULOCK.
WHEELS FOR VEHICLES.

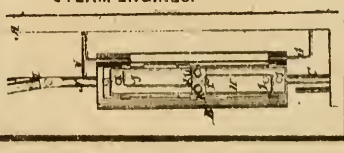


112,168, PETER W. NEEFUS.
STAIR AND FLOOR-PLATES.

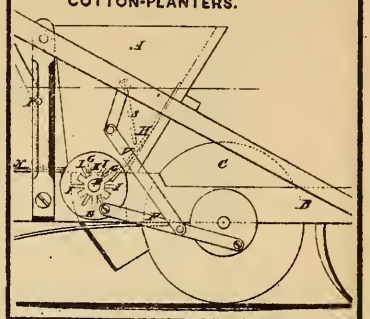
112,169, JOHN HENRY NICHOLES.
COMBINED COTTON-PLANTERS AND GUANO-DISTRIBUTERS.



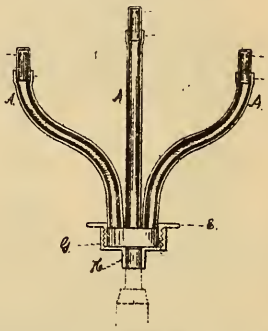
112,170, POWELL F. NICKERSON.
STEAM-ENGINES.



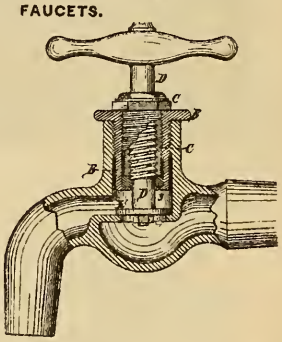
112,171, RUFUS F. NORWOOD.
COTTON-PLANTERS.



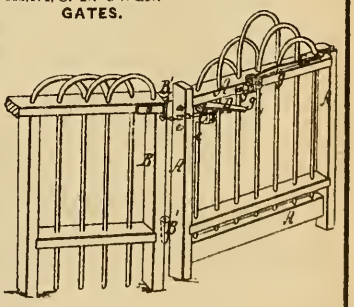
112,172, RUFUS NUTTING.
CHANDELIER GAS-BURNER.



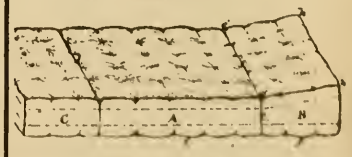
112,173, O. B. O'SULLIVAN.
FAUCETS.



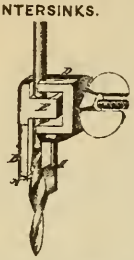
112,174, C. N. OWEN.
GATES.



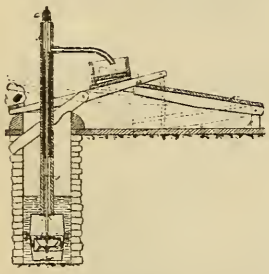
112,175, WM. H. PACK.
JOSEPH S. VANHORN
MATTRESSES.



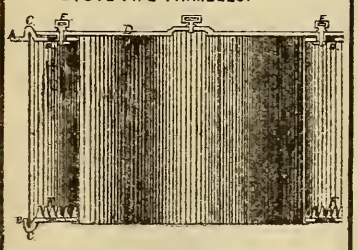
112,176. FRANK H. PALMER.
COUNTERSINKS.



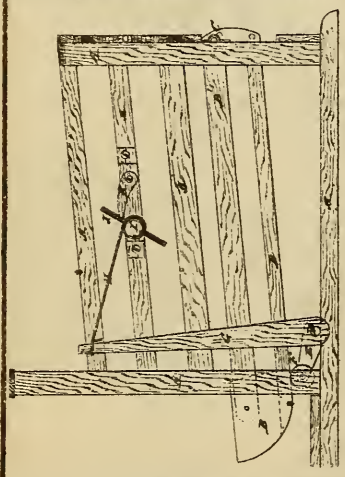
112,177. JOHN S. PATRIC. PUMPS.



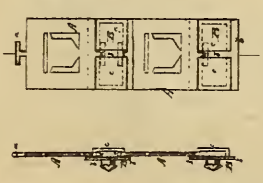
112,178. JAMES D. PIERCE.
STOVE-PIPE THIMBLES.



112,179. NICHOLAS POTTER.
ADJUSTABLE ANIMAL-POWERS.

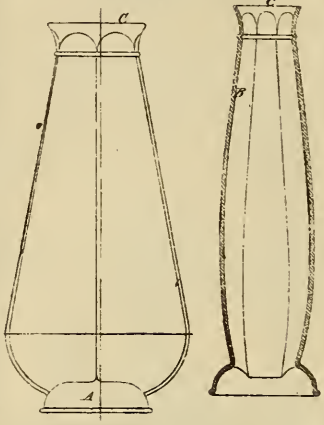


112,180. VIRGIL PRICE.
BALDRICS.

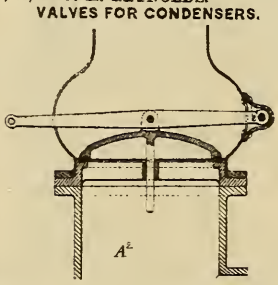


112,181. VIRGIL PRICE.
METHODS OF COATING AND FINISHING SWORD-SCABBARDS.

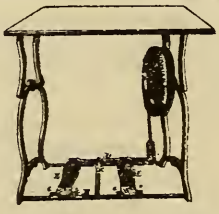
112,182. JAMES M. RANKIN, JR.
LAMP-CHIMNEYS.



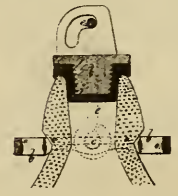
112,183. GEO. H. REYNOLDS.
VALVES FOR CONDENSERS.



112,184. LEO W. SAPP, M. D.
SEWING-MACHINE TREADLES.

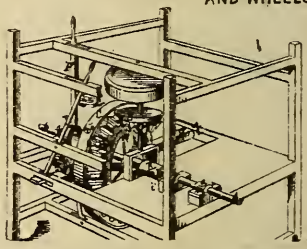


112,185. FREDRICH SCHLICH.
BOTTLE-STOPPERS.

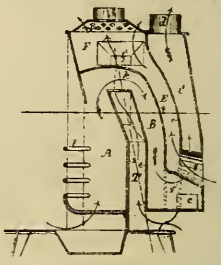


112,186. JACOB SKEEN.
LUMBER-WAGONS.

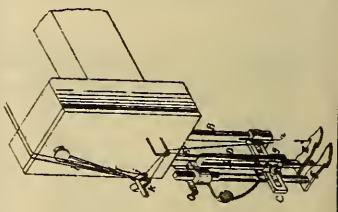
112,187. JOHN SKINNER.
GEARING AND UNGEARING PINIONS AND WHEELS.



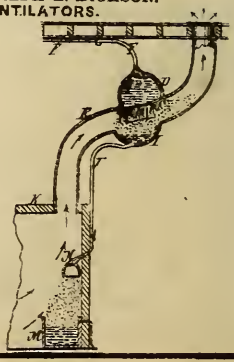
112,188. JOHN SMITH. FIRE-PLACES.



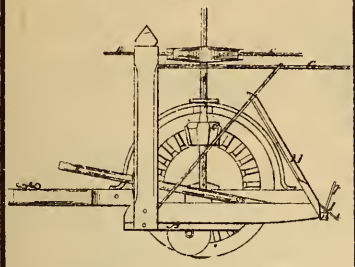
112,189. WILLIAM T. SMITH.
SEWING-MACHINES.



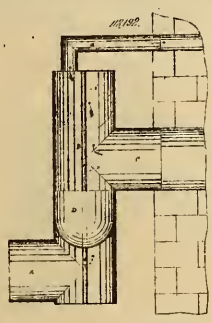
112,190. DANIEL M. SPROGLE.
JOSEPH E. DICKSON.
VENTILATORS.



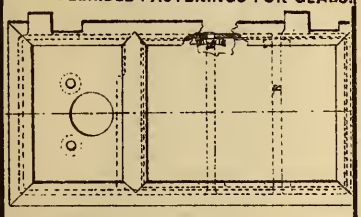
112,191. CLEMENT SMITH STULL.
CORN-HARVESTERS.



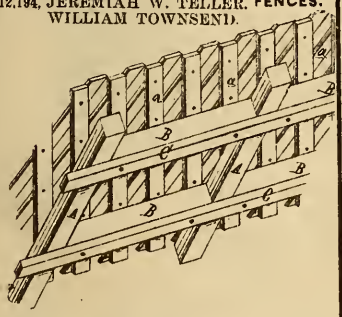
112,192, PETER SWEENY. TUVERES.



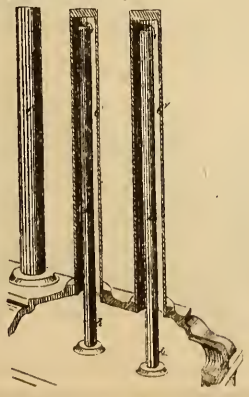
112,193, W. H. TAYLOR.
FLEXIBLE FASTENINGS FOR GLASS.



112,194, JEREMIAH W. TELLER. FENCES.
WILLIAM TOWNSEND.

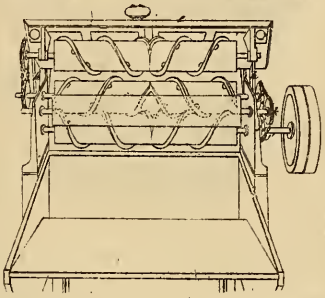


112,195, WALTER THOMSON.
STEAM HEATERS.



112,196, WILLIAM J. THORN.
HORSE-COLLARS.

112,197 JOSEPH VERO.
MACHINES FOR FELTING HAT-BODIES.



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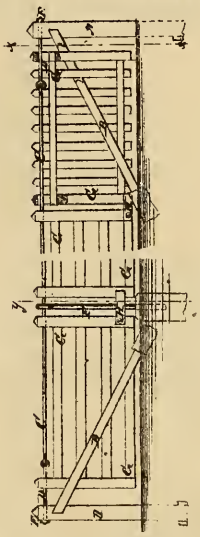
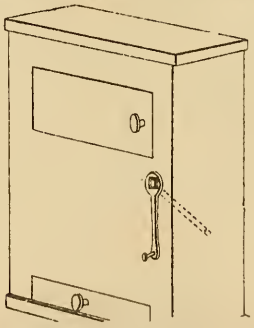
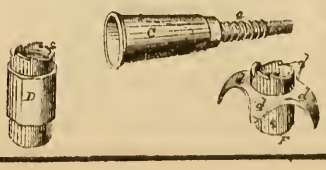


112,199, J. W. WETMORE. FIRE-PLACES.

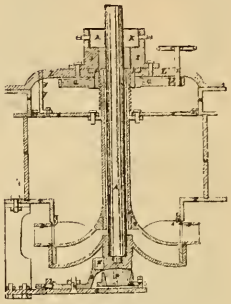


112,200, JEFFERSON G. WIGGINS.
ATTACHING SPOKES TO WHEELS.

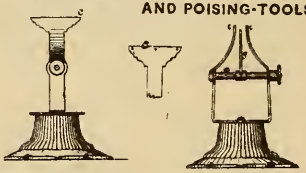


112,201, GALEN S. WOOD.
MEDICAL COMPOUNDS OR LINIMENTS.

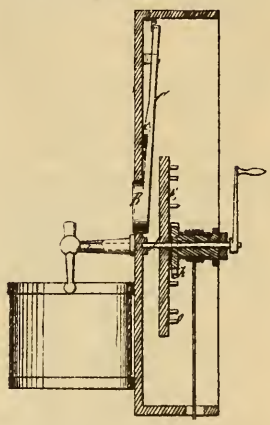
112,202, L. M. WRIGHT. WATER-WHEELS.



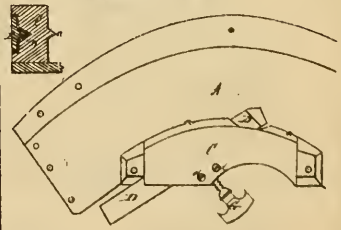
112,203 FRANCIS E. ALLEN.
JEWELERS' COMBINED CALIPERS AND POISING-TOOLS.



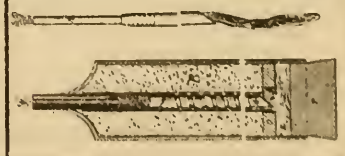
112,204, ANDREAS ANDERHUB.
TARGET-ALARMS.



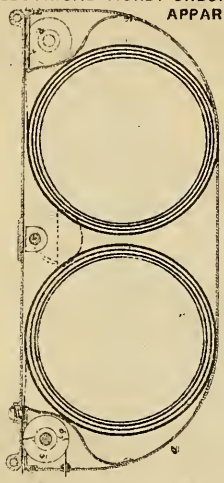
112,205, VINCENT his × mark. APPLEGATE.
MARLINE P. JACOBS.
SAMUEL F. his × mark. ROBY.
COOPERS' CROZE.



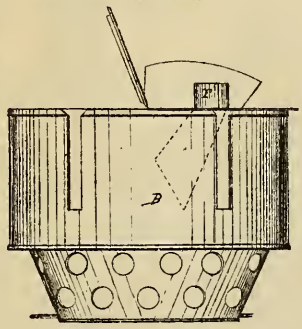
112,206, THOMAS J. BARRON.
BURNING HYDROCARBON LIQUIDS FOR LIGHT.



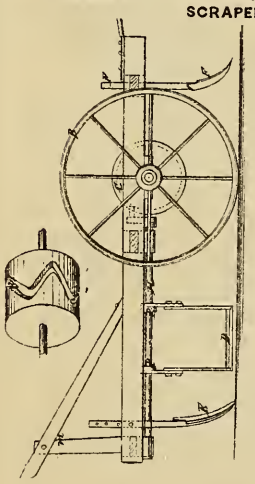
112,207. MARCUS BEBRO.
ELECTRICAL TICKET-CHECKING APPARATUS.



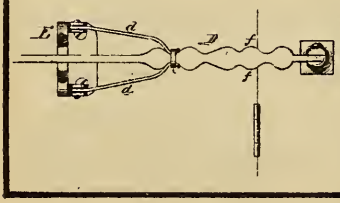
112,208. GEORGE BENNS.
SAD-IRON HEATERS.



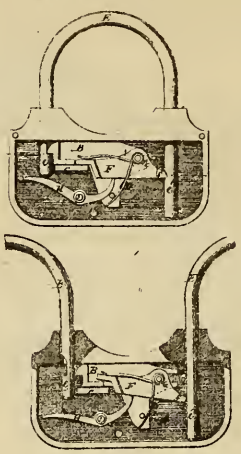
112,209. WILLIAM C. BIBB.
COMBINED COTTON-CHOPPERS, SCRAPERS, &c.



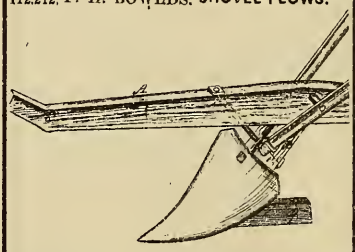
112,210. CHAS. BIRD.
DOOR-CHECKS.



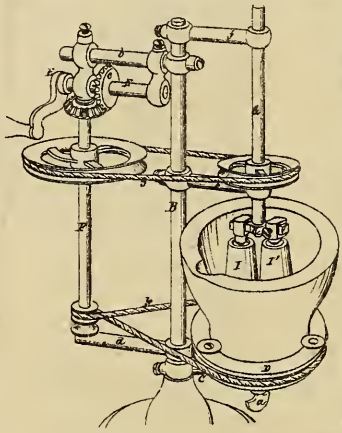
112,211. WILSON BOHANNAN.
KEYLESS PADLOCKS.



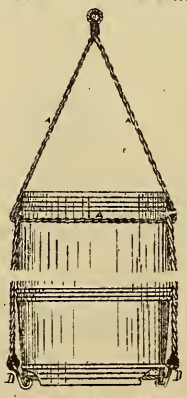
112,212. F. H. BOWLDS. SHOVEL-PLOWS.



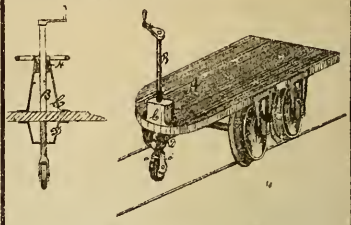
112,213. ELIJAH BRADY. TRITURATORS.



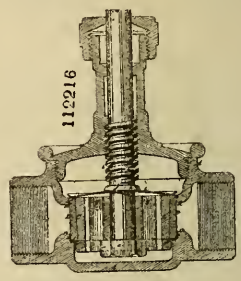
112,214. JOHN S. BREWER.
APPARATUS FOR LIFTING BARRELS, &c.



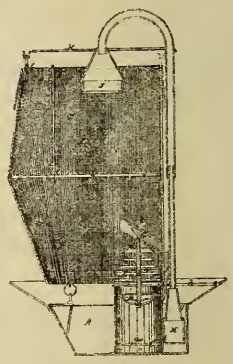
112,215. C. B. BROADWELL.
STREET-CARS.



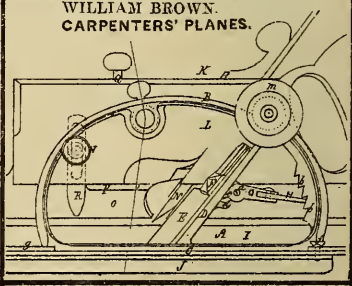
112,216. SIDNEY BROADBENT.
WILLARD B. CULVER.
STOP-VALVES.



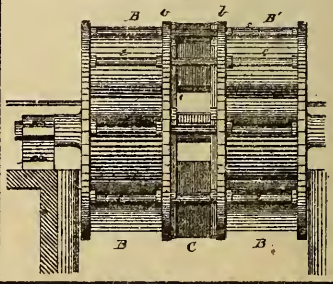
112,217. CYRIL P. BROWN.
SHOWER-BATH APPARATUS.



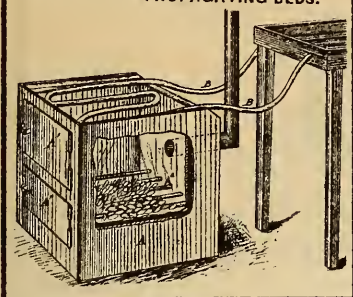
112,218. JAMES RAYMOND BROWN.
WILLIAM BROWN.
CARPENTERS' PLANES.



112,219. HENRY BUSHNELL.
WATER-WHEELS.



112,220, WM. CHALMERS.
APPARATUS FOR HEATING PROPAGATING-BEDS.



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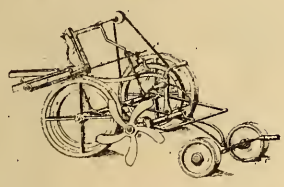
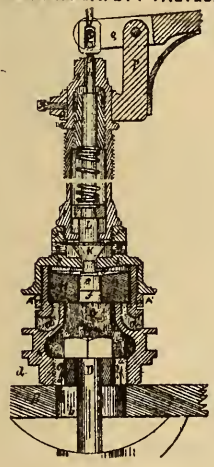
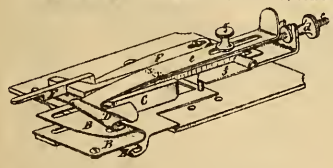
SAMUEL P. CLARK.
HEDGE-TRIMMERS.



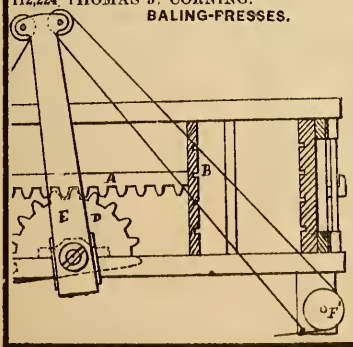
112,222, GILBERT H. CLEMENS.
STEAM SAFETY-VALVES.



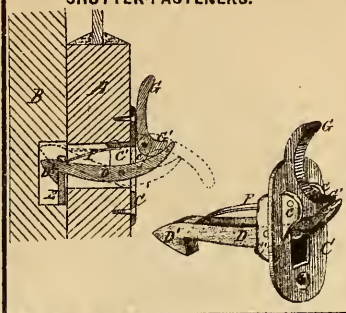
112,223, JACOB L. COLES.
BINDERS FOR SEWING-MACHINES



112,224 THOMAS J. CORNING.
BALING-PRESSES.

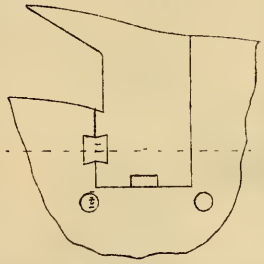


112,225, J. L. DEVOL.
SHUTTER-FASTENERS.

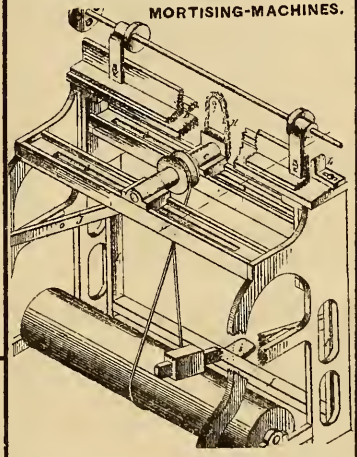


112,226, R D'HEUREUSE.
FERMENTATION AND PURIFICATION OF ORGANIC SUBSTANCES.

112,227, HENRY DISSTON. SAWS.

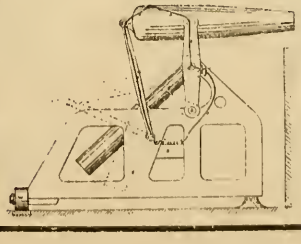


112,228, WILLIAM DOWNING.
WM. H. SOLEY.
MORTISING-MACHINES.

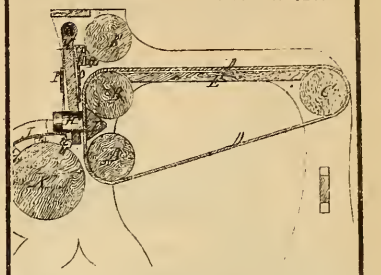


112,229, RICHARD DUDLEY.
BENJ. HERSHEY.
RAILWAY-CAR SPRINGS.

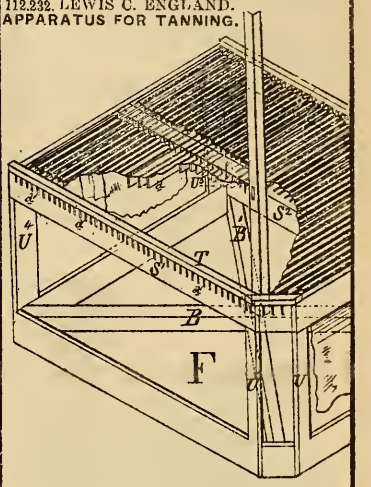
112,230, JAS. B. EADS.
OPERATING ORDNANCE.



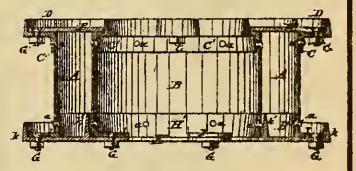
112,231, WINSLOW P. EAYRS.
LOZENGE-CUTTING MACHINES.



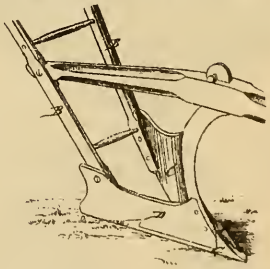
112,232, LEWIS C. ENGLAND.
APPARATUS FOR TANNING.



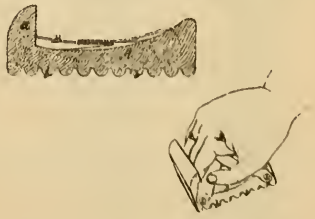
112,233, MICHEL G. FAGAN.
HEATING APPARATUS.



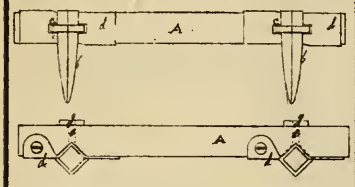
112,234, JOHN B. FERGUSON. PLOWS.
SAMUEL M. WHITE.



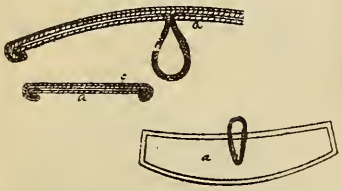
112,235, SEYMOUR FOSTER.
CLOTHES-RUBBERS.



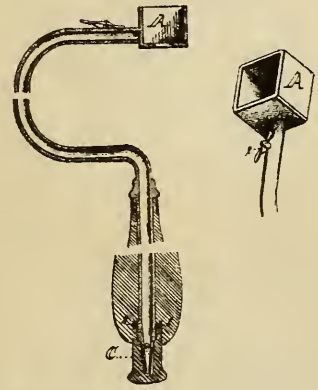
112,236, GEORGE FRY.
MODES OF FASTENING HARROW-TEETH.



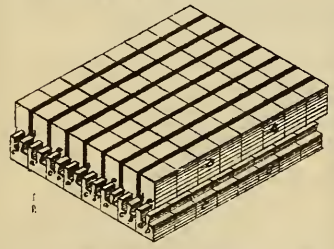
112,237, E. B. GIBBUD.
NECK-TIE RETAINERS.



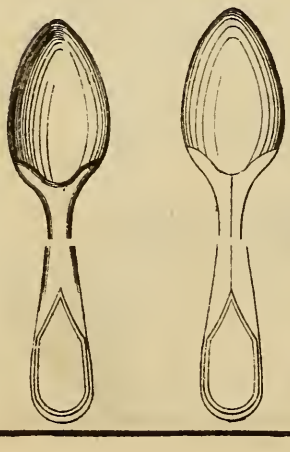
112,238, EDWIN B. GIFFORD.
WRENCHES AND OILERS.



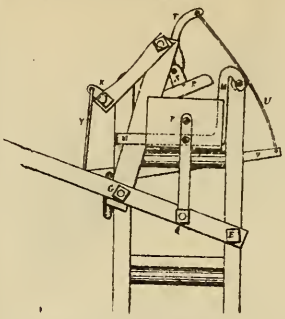
112,239, JACKSON GRANT.
WOODEN PAVEMENTS.



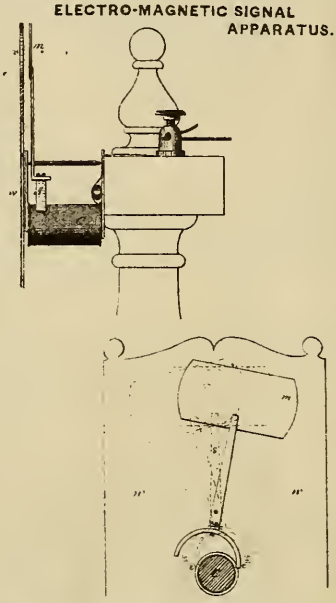
112,240, F. GROSJEAN, SPOONS.



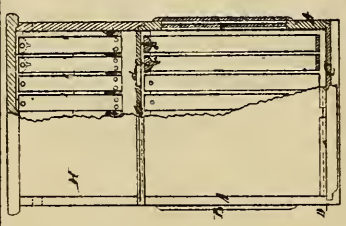
112,241 PHILLIP P. GROSS.
STRAW-CUTTERS.



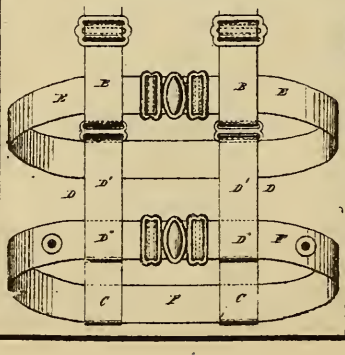
112,242, AUGUSTUS HAHL.
ELECTRO-MAGNETIC SIGNAL APPARATUS.



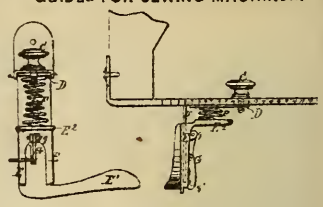
112,243. H. S. HARNEL. BEE-HIVES.
F. S. ELLIOTT.



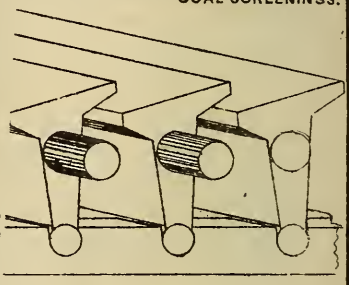
112,244 MARX HARRIS.
LADIES' SUPPORTING-BRACES.



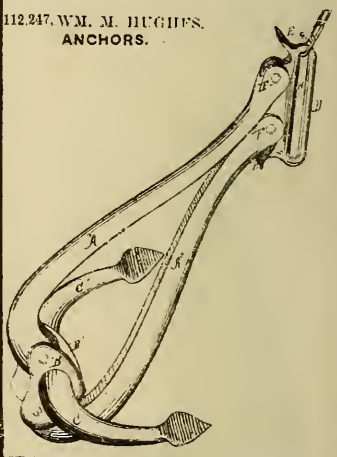
112,245 FRANZ HERTERICH.
GUIDES FOR SEWING-MACHINES.



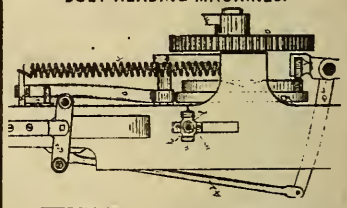
112,246, G. W. HILDRETH.
GRATES FOR BURNING COAL-SCREENINGS.

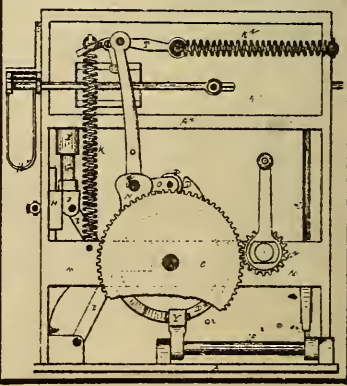


112,247, WM. M. HUGHES.
ANCHORS.

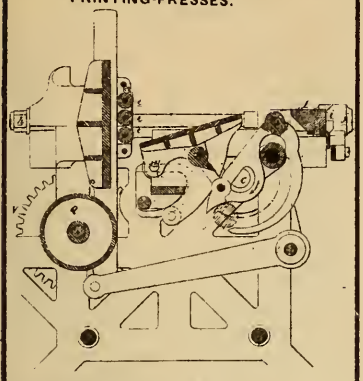


112,248 THOMAS HULL.
NICHOLAS THOMAS.
BOLT-HEADING MACHINES.

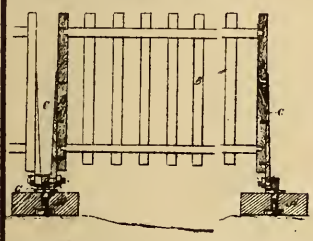




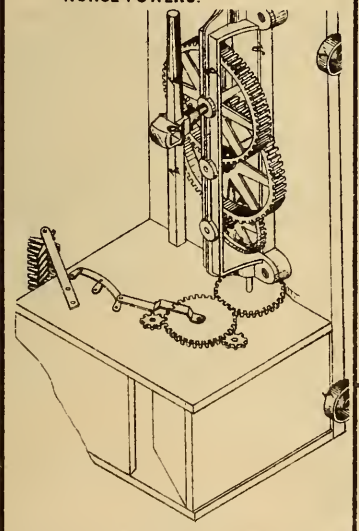
112,249 GEORGE W. HUNT.
PRINTING-PRESSES.



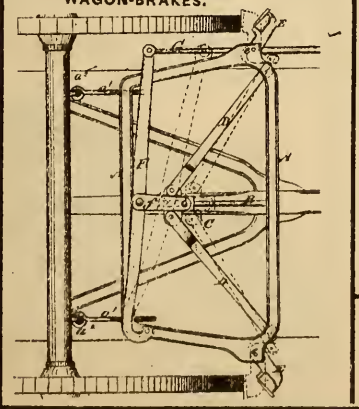
112,250, CHARLES R. HUNTER.
FLOOD-FENCES.



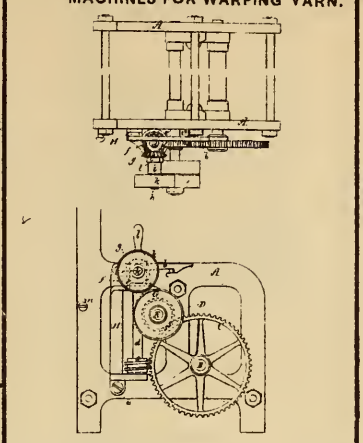
112,251, JAMES W. HUNTOON.
HORSE-POWERS.



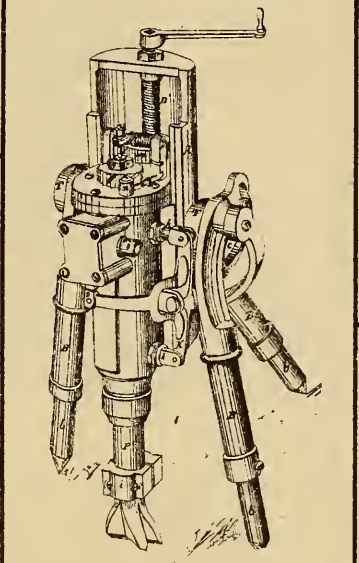
112,252, REUBEN HURD.
WAGON-BRAKES.



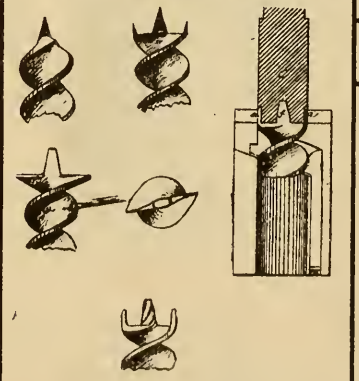
112,253, DANIEL HUSSEY.
MACHINES FOR WARPING YARN.



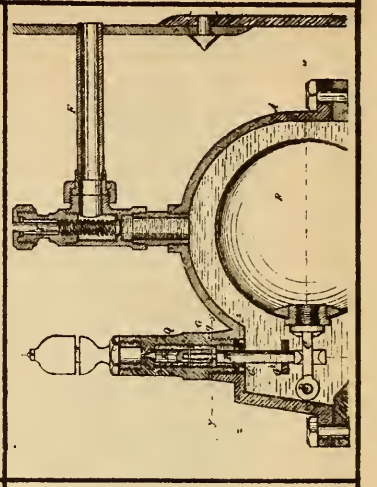
112,254, SIMON INGERSOLL.
ROCK-DRILLS.



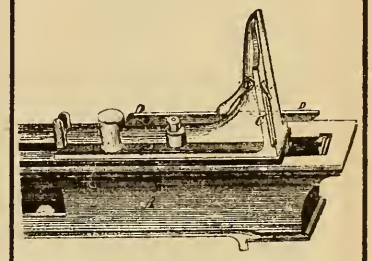
112,255, WM. A. IVES.
FORMING SPUR-LIPS OF AUGER-BITS.



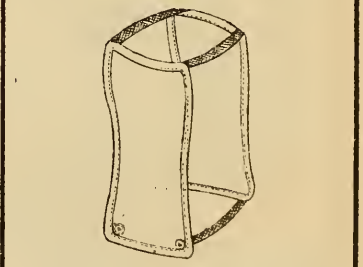
112,256, HIRAM KIMBALL.
LOW-WATER INDICATORS.



112,257, WM. A. L. KIRK.
HEAD-BLOCKS FOR SAW-MILLS.

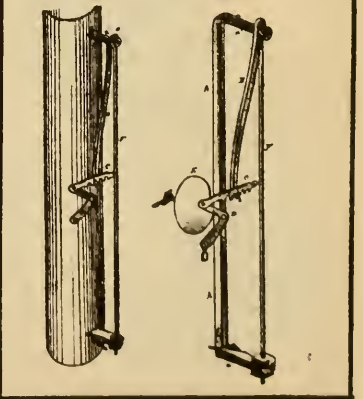


112,258, PETER LEAR.
CHEST-PROTECTORS.

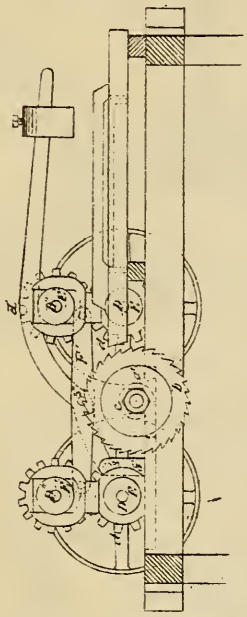


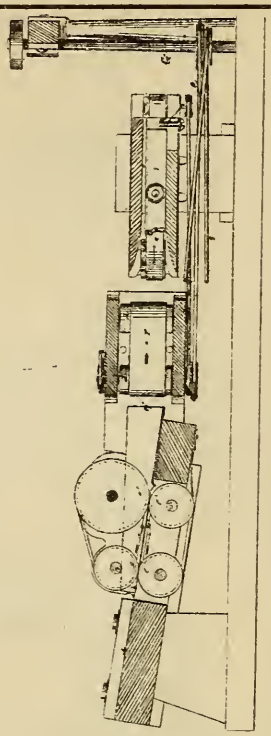
112,259, HENRY LOOS.
SOAP COMPOUNDS.

112,260, WILLIAM H. LUTZ.
STOVE-PIPE DAMPERS.

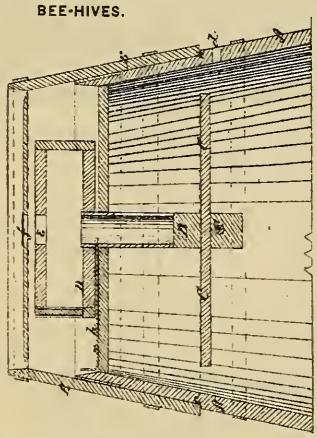


112,261. JOHN C. MACKAY.
LATH-MACHINES.





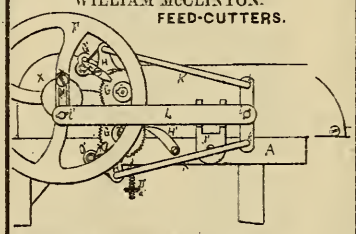
112,262. GIDEON MARSH.
BEE-HIVES.



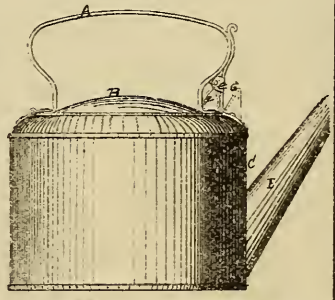
112,263. JAMES S. MARSH,
HARVESTERS.

112,264. JOHN McADAMS.
PAPER-FOLDING MACHINES.

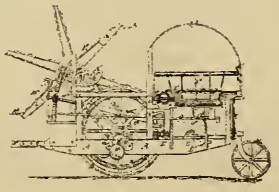
112,265. JAMES B. McCLINTON.
WILLIAM McCLINTON.
FEED-CUTTERS.



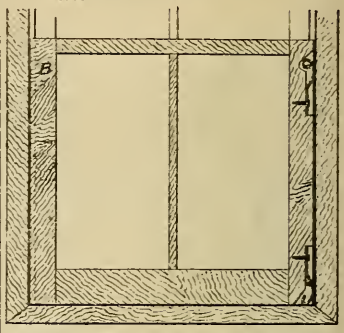
112,266. CHARLES W. McCLURE.
WILLIAM A. SHEPARD.
TEA-KETTLES.



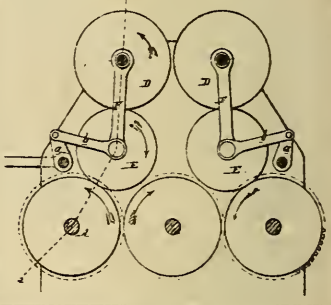
112,267. JOHN M. McKESSON.
COMBINED HARVESTERS AND BINDERS.



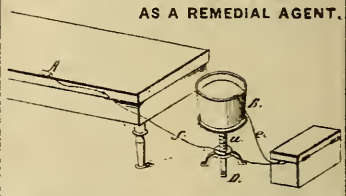
112,268. JOSEPH W. MEGAW.
SASH-HOLDERS.



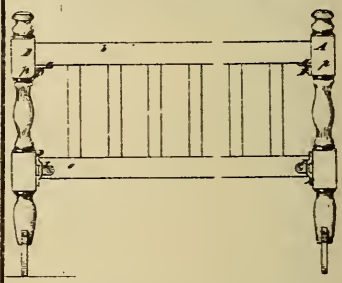
112,269. WILLIAM H. MERRICK.
DEVICES FOR TRANSMITTING AND REVERSING ROTARY MOTION.



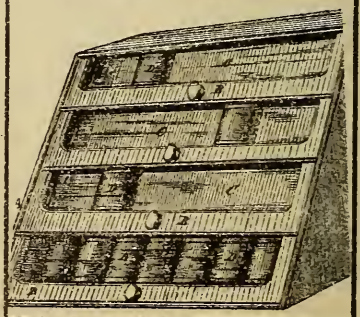
112,270. GEO. MUNRO.
APPARATUS FOR USING ELECTRICITY AS A REMEDIAL AGENT.



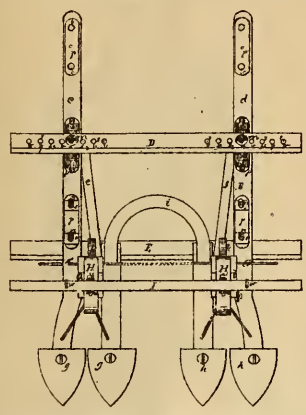
112,271. RICHARD W. MYERS. CRADLES.



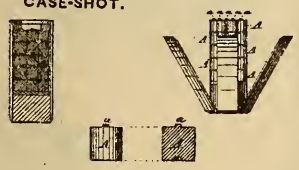
112,272. RICHARD H. NORRIS.
SPOOL SHOW-CASES.



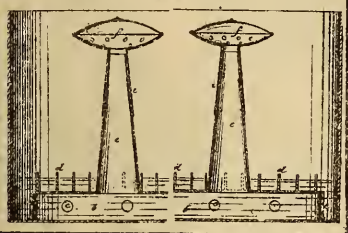
112,273, GEORGE OWEN.
COUPLINGS FOR PLOWS



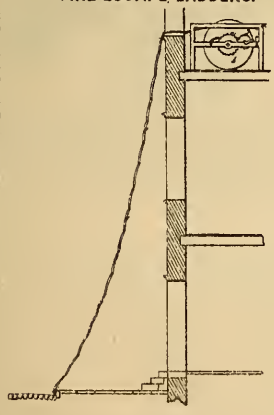
112,274 SETH WHITE PAINE.
CASE-SHOT.



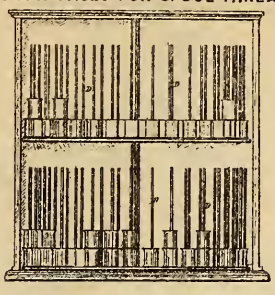
112,275, THOS. U. PARKER.
WASH-BOILERS.



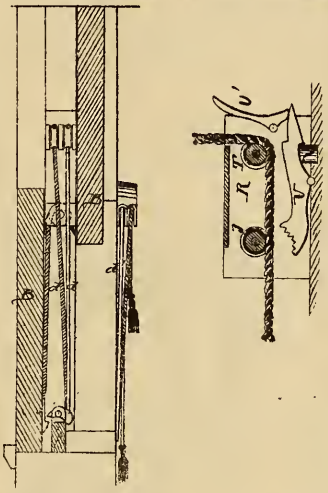
112,276, WILLIAM B. PEREGOY.
FIRE-ESCAPE LADDERS.



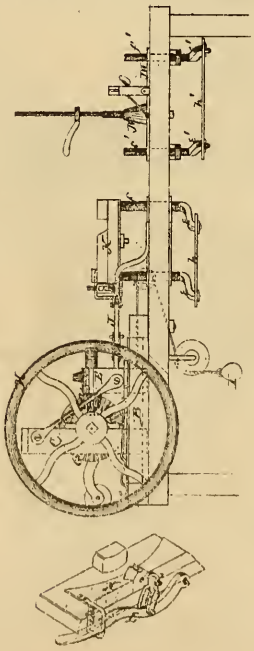
112,277, ALEXANDER C. PHILLIPS.
SHOW-CASES FOR SPOOL-THREADS.



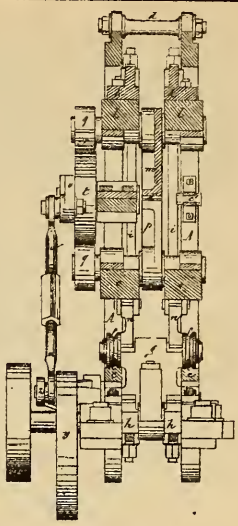
112,278, CHARLES R. BAND.
LOCKING DEVICES FOR WINDOW-CORDS.



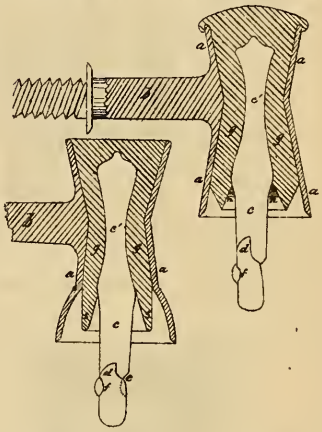
112,279, DAVID REED.
THOMAS E. PIERCE.
SPOKE AND FELLY MACHINES.



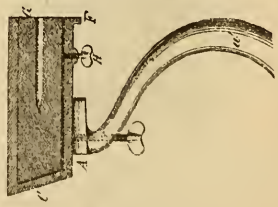
112,280, HENRY REESE.
NAIL-MACHINES.



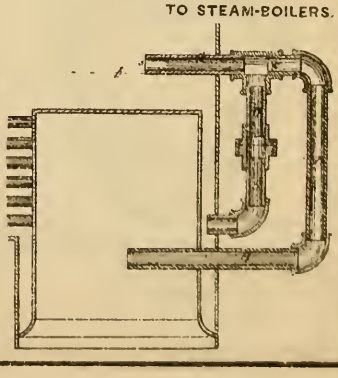
112,281. ZENAS C. ROBBINS.
INSULATORS FOR TELEGRAPH-WIRES.



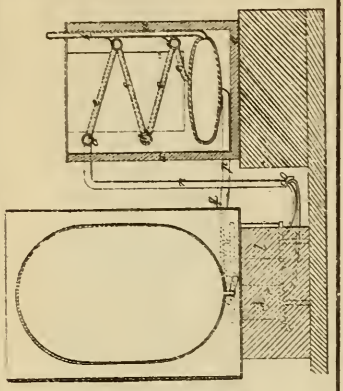
112,282, WILLIAM D. ROBERTSON.
SAD AND FLUTING-IRONS.



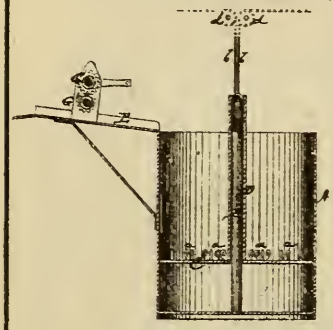
112,283, ANDREW ROBES.
JOHN C. CHAPMAN
SAFETY-PLUG ATTACHMENTS
TO STEAM-BOILERS.



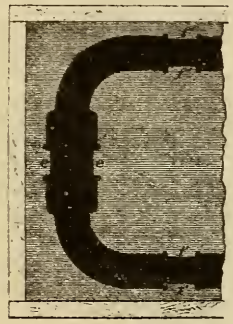
112,284. ADOLPHE ROCK.
ICE-MACHINES.

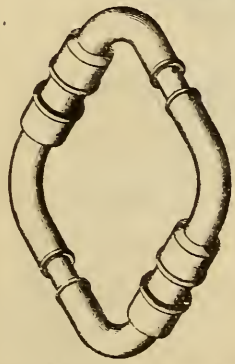


112,285 ADOLPHE ROCK.
PROCESSES AND APPARATUS FOR CURING HIDES.

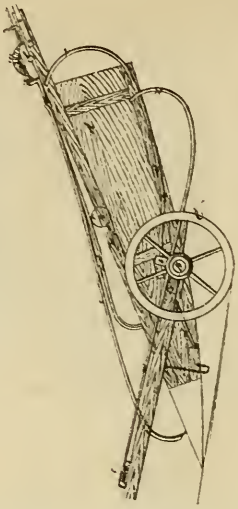


112,286, GEORGE ROSS.
MOLDING AND CASTING PIPE-ELBOWS.

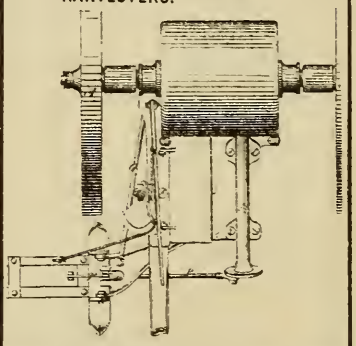




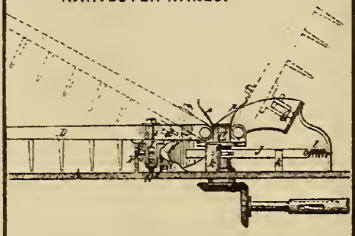
112,287. ANSELL P. ROUTT.
JOHN J. KEETON.
SELF-LOADING SCRAPERS.



112,288 JACOBS W. SCHUCKERS.
HARVESTERS.



112,289. FRANCIS B. SCOTT.
HARVESTER-RAKES.



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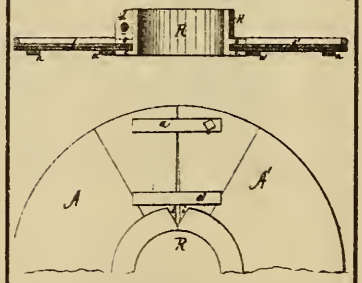
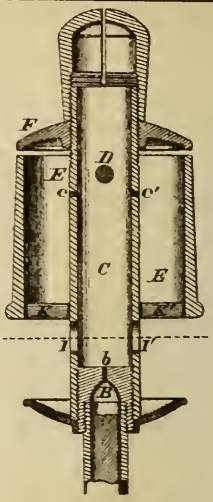
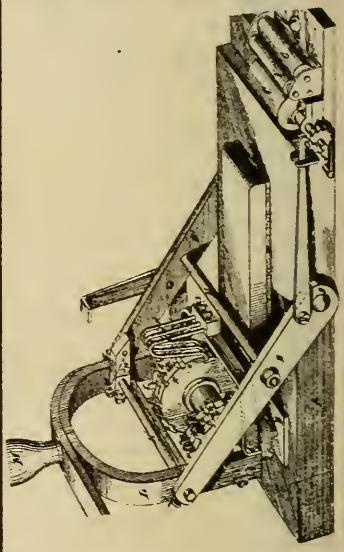
STOVE-PIPE SHELVES.



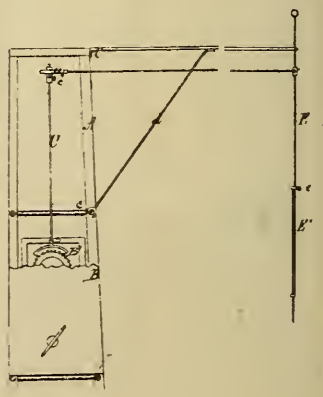
112,291. JAMES SHAY.
VAPOR-BURNERS.



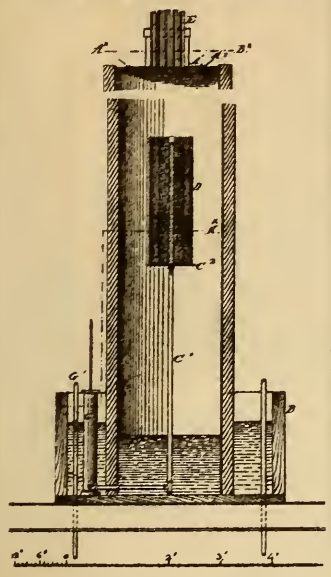
112,292. ALPHEUS C. SINE.
NUMBERING AND PAGING-MACHINES.



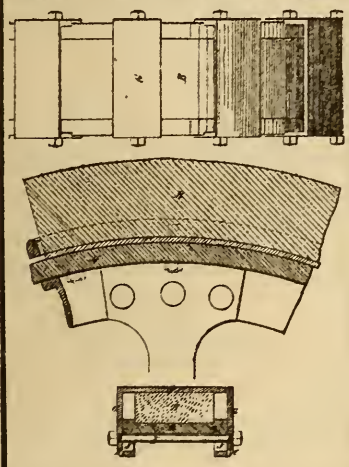
112,293. CHARLES BRIDGES SMITH.
AUTOMATIC FANS.



112,294 D. E. SOMES.
COOLING, FREEZING, AND PRESERVING SOLIDS, LIQUIDS, AND GASES.

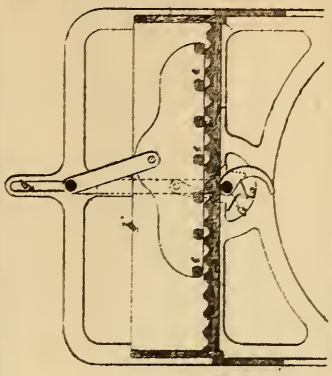


112,295, LOUIS STERNE.
RUBBER TIRES FOR STEAM-CARRIAGES.

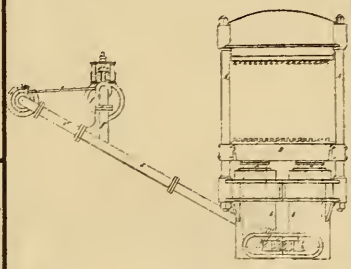


112,296 JOHN H. STEVENSON.
SAW-JOINTERS FOR CIRCULAR-SAWS.

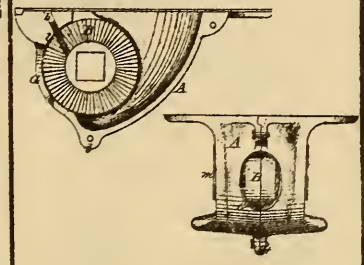
112,297 JOHN TAYLOR.
WASHING-MACHINES.



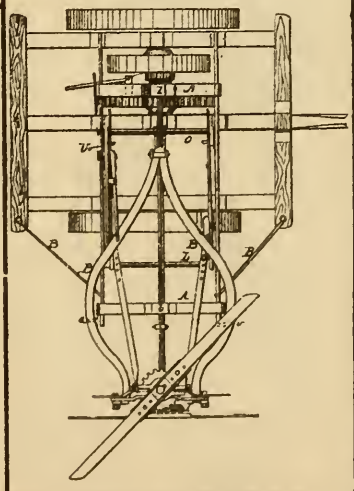
112,298. JOHN F. TAYLOR.
STEAM AND HYDRAULIC-PRESSES.



112,299. JOHN H. THOMAS.
GRAIN-DRILLS.

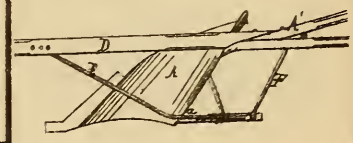


112,300 JAMES M. VANNOSDALL.
OLIVER W. VANNOSDALL.
HEDGE-TRIMMERS.

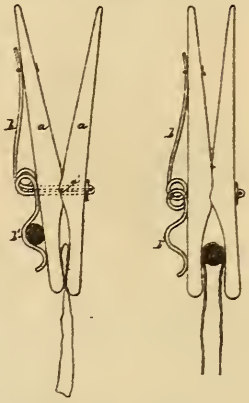


112,301, WILLIAM F. VEBER.
CONSTRUCTION OF WOODEN BOXES.

112,302. HARVY WASHBURN.
PLOWS.



112,303 HIRAM J. WATTLES.
CLOTHES-PINS.



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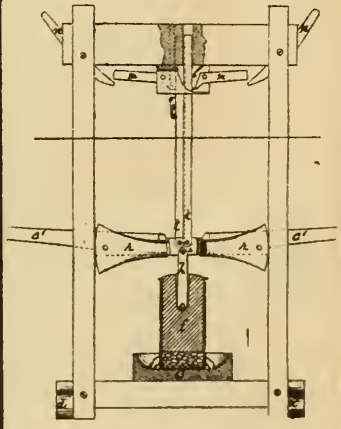
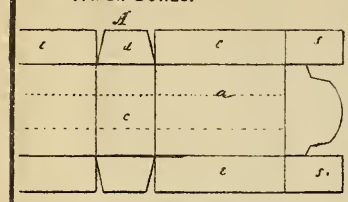
FRUIT-PRESSES.

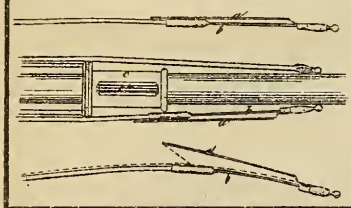


112,305. ROLLIN WHITE.
CARTRIDGES.

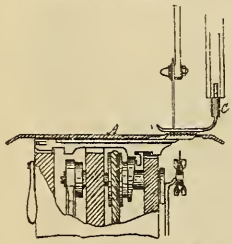
112,306. JOHN WARREN WILCOX.
PAPER BOXES.



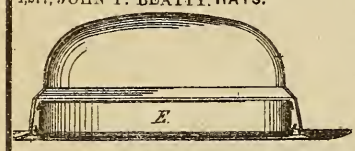
112,307, JAMES WILLIS. UMBRELLAS.



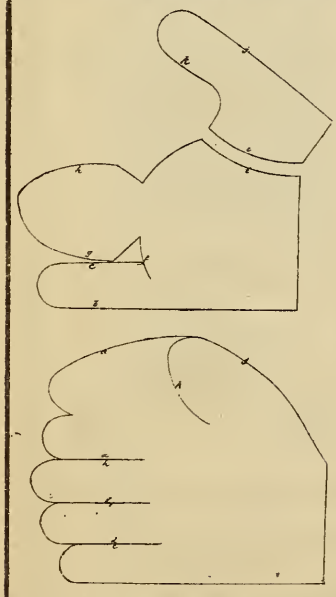
112,308, WILLIAM C. WINTERS.
SEWING-MACHINES



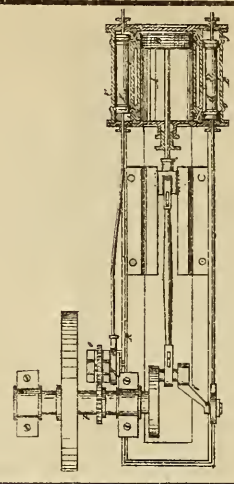
4,277, JOHN P. BEATTY. HATS.



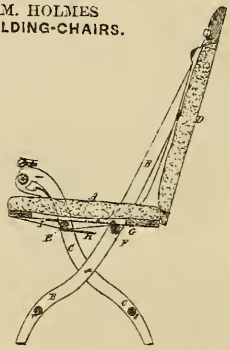
4,278. R. D. BURR. GLOVES.



4,279, PHILIP ESTES.
STEAM-ENGINES.



4,280, F. M. HOLMES
FOLDING-CHAIRS.



4,281, HENRY F. MANN.
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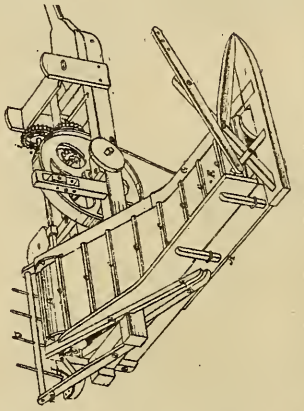
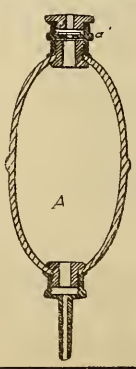
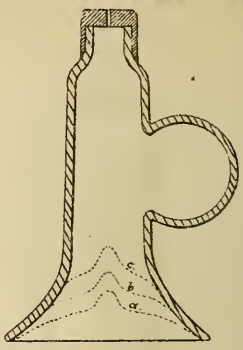
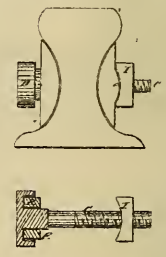


4,282, M. MATTSON. BREAST-PUMPS.

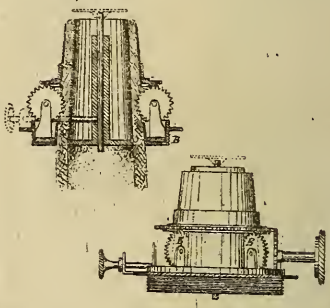




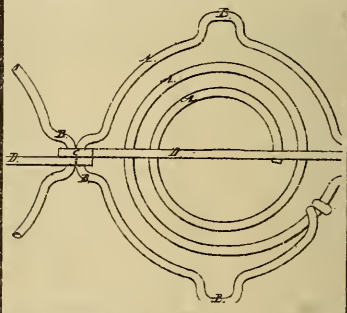
4,283, JOHN MILLER, JR.
LOCK-NUTS.



4,284, ALBERT H. NORTH.
LAMPS.



4,285 CHARLES RICH
SPRINGS FOR BEDS, &c.



4,286. WENDELL WRIGHT.
SECURING SPRINGS IN UPHOLSTERY.

ILLUSTRATIONS OF PATENTS

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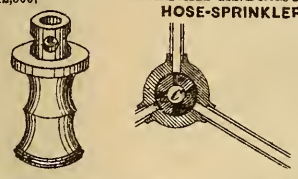
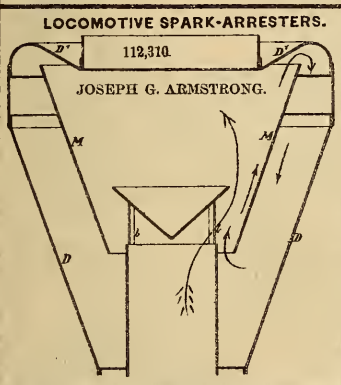
MARCH 7, 1871.

112,309. WILLIAM ANDERSON. HOSE-SPRINKLERS.

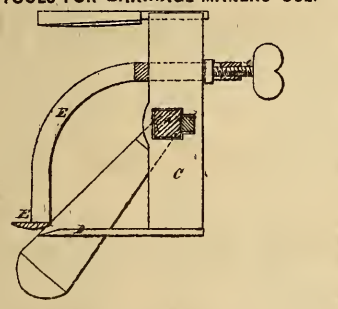


LOCOMOTIVE SPARK-ARRESTERS.

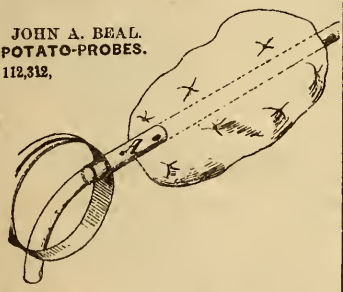
112,310. JOSEPH G. ARMSTRONG.



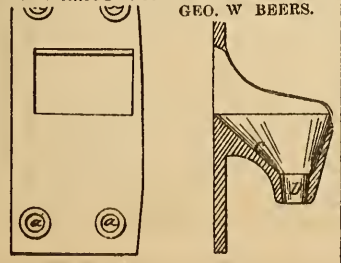
112,311. GEORGE ATKINSON. TOOLS FOR CARRIAGE-MAKERS' USE.



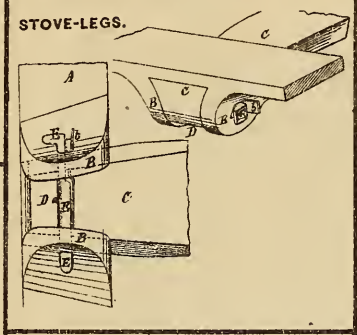
JOHN A. BEAL. POTATO-PROBES. 112,312.



112,313. HINGES FOR CARRIAGE-DOORS. GEO. W BEERS.



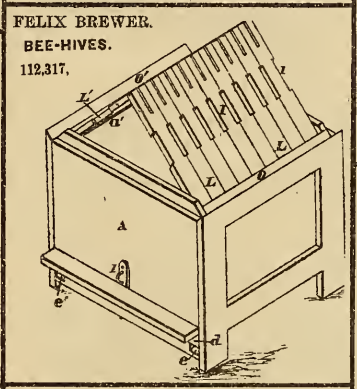
112,314 JAMES BIRCKHEAD, JR. STOVE-LEGS.



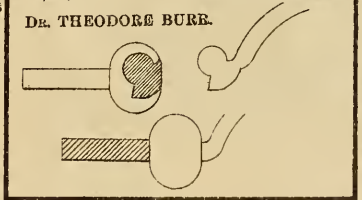
ORRIS A. BISHOP CLOTHES-PINS. 112,315.

112,316. VICTOR G. BLOEDE. MANUFACTURE OF ROCHELLE SALTS AND BORAX.

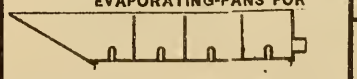
FELIX BREWER. BEE-HIVES. 112,317.



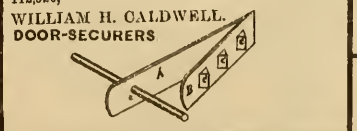
112,318. THILL-COUPLINGS. DR. THEODORE BURR.



112,319. FRANCIS G. BUTLER. SACCHARINE LIQUIDS. EVAPORATING-PANS FOR

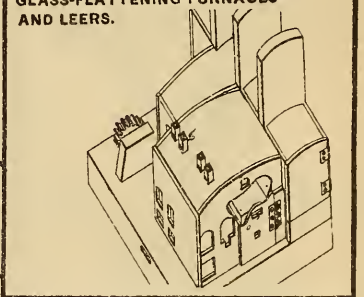


112,320. WILLIAM H. CALDWELL. DOOR-SECURERS

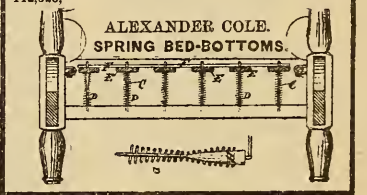


112,321. RALPH B. CASWELL. TOE-CALK BARS.

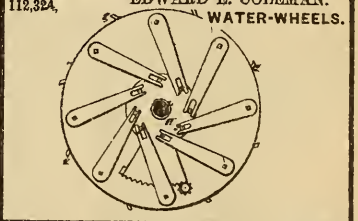
JAMES his + mark CLABBY. 112,322. GLASS-FLATTENING FURNACES AND LEERS.



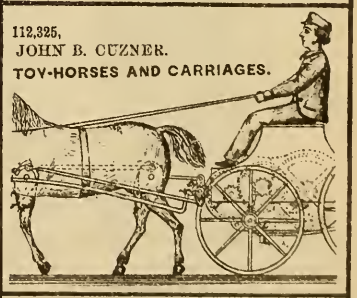
112,323. ALEXANDER COLE. SPRING BED-BOTTOMS.



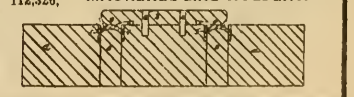
112,324. EDWARD E. COLEMAN. WATER-WHEELS.



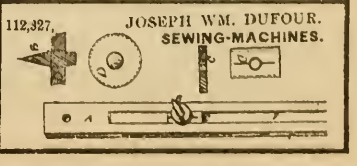
112,325. JOHN B. CUZNER. TOY-HORSES AND CARRIAGES.



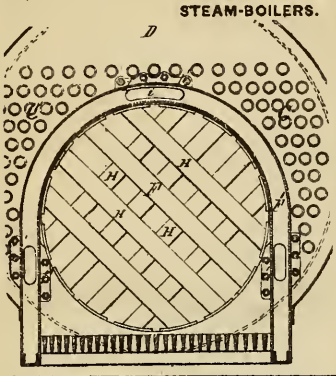
112,326. E. L. DECKER. MACKEREL-LINE HOLDERS.



112,327. JOSEPH WM. DUFOUR. SEWING-MACHINES.

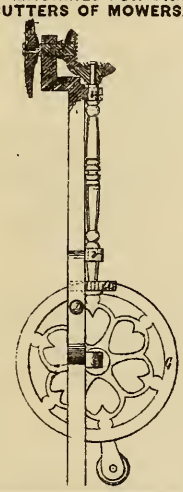


112,328. EDWARD EVANS.
STEAM-BOILERS.

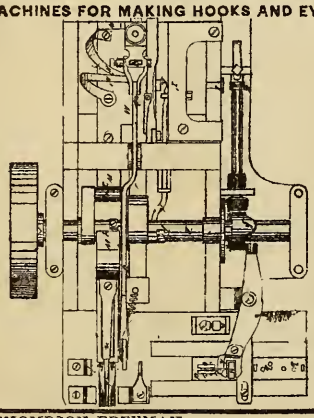


112,329. ERASTUS FIELD.
MEDICAL COMPOUNDS FOR CURE OF CATARRH AND ASTHMA.

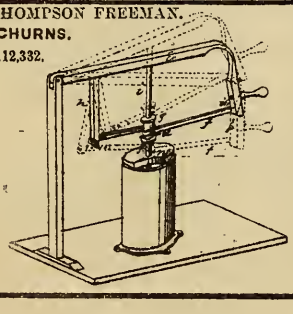
112,330. HENRY CLAY FISK.
MACHINES FOR GRINDING THE CUTTERS OF MOWERS, &c.



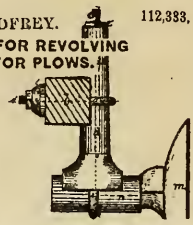
112,331. JEREMY T. FORD.
MACHINES FOR MAKING HOOKS AND EYE



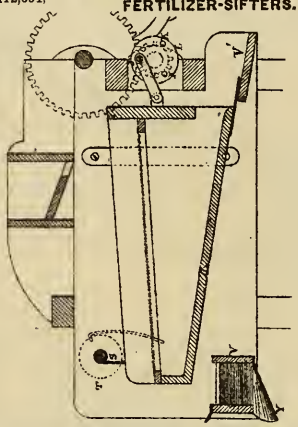
THOMPSON FREEMAN.
CHURNS.
112,332.



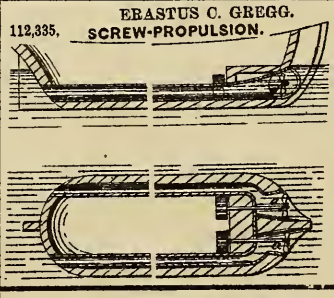
JOSEPH S. GODFREY. 112,333.
ATTACHMENTS FOR REVOLVING MOLD-BOARDS FOR PLOWS.



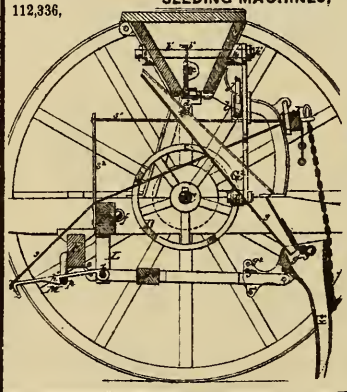
JAMES A. GREEN.
112,334. GRAIN-CLEANERS AND FERTILIZER-SIFTERS.



ERASTUS C. GREGG.
112,335. SCREW-PROPULSION.

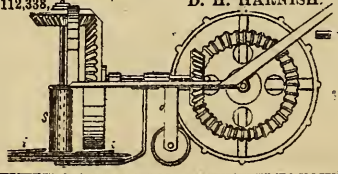


PHILIP M. GUNDLACH.
112,336. SEEDING-MACHINES.



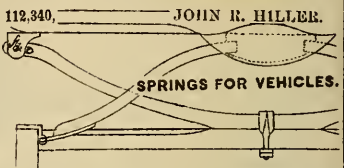
112,337. JOSEPH L. HANNUM.
SAMUEL H. STEBBINS.
COMPOUNDS FOR KINDLING FIRES.

LAWN-MOWERS. B. HARNISH.
112,338. D. H. HARNISH.

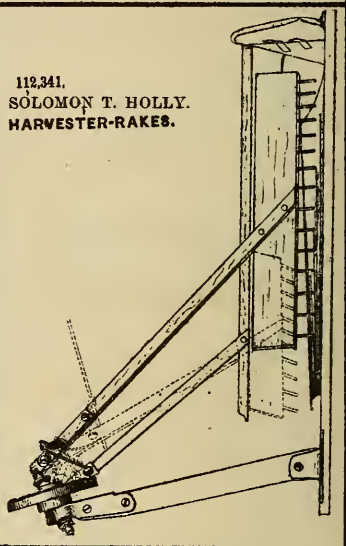


112,339. CHARLES B. HARRIS.
COMPOSITIONS FOR PAVEMENTS.

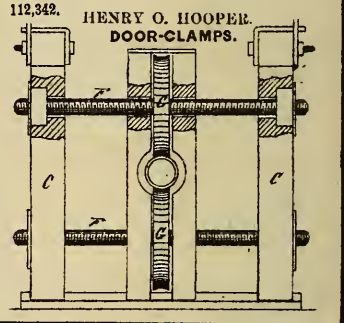
112,340. JOHN R. HILLER.
SPRINGS FOR VEHICLES.



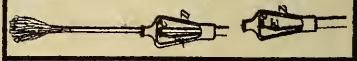
112,341. SOLOMON T. HOLLY.
HARVESTER-RAKES.



112,342. HENRY O. HOOPER.
DOOR-CLAMPS.

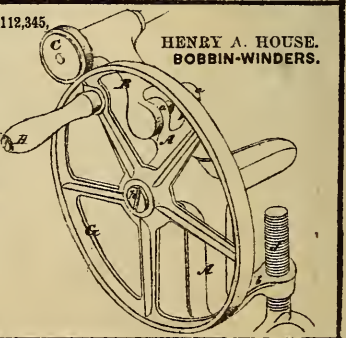


THOMAS W. HOUCHIN.
112,343. TAPER-HOLDERS.

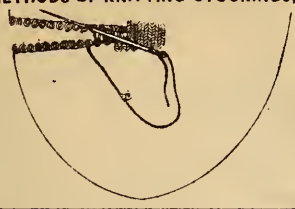


112,344. METALLIC GARTERS.
HENRY A. HOUSE.

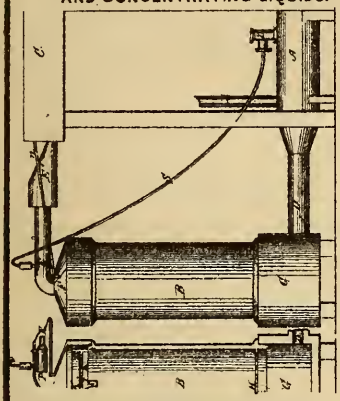
112,345. HENRY A. HOUSE.
BOBBIN-WINDERS.



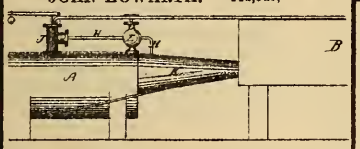
112,346, HENRY A. HOUSE.
METHODS OF KNITTING STOCKINGS.



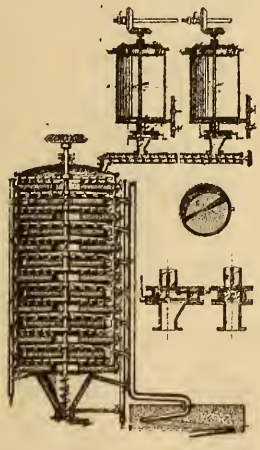
112,347. JOHN HOWARTH.
APPARATUS FOR EVAPORATING AND CONCENTRATING LIQUIDS.



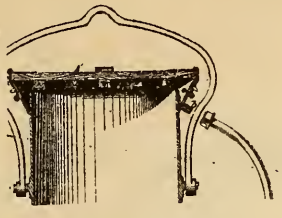
APPARATUS FOR EVAPORATING AND CONCENTRATING LIQUIDS.
JOHN HOWARTH. 112,348,

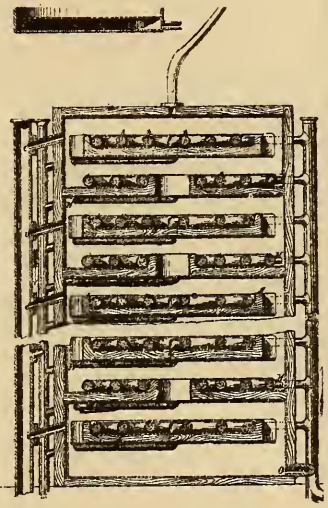


ELIAS S. HUTCHINSON.
112,349, APPARATUS FOR REMOVING OIL FROM VEGETABLE AND OTHER MATTERS.

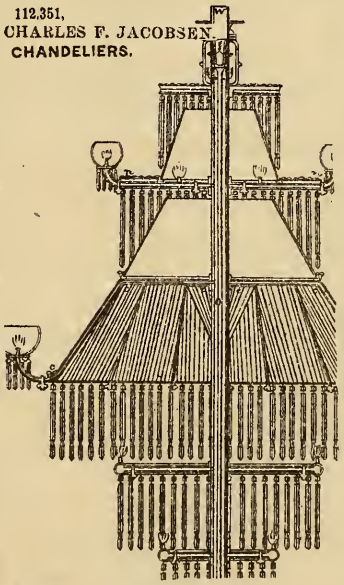


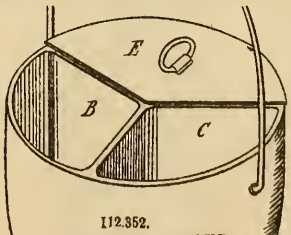
112350 ELIAS S. HUTCHINSON.
APPARATUS AND PROCESSES FOR REMOVING OIL FROM GRAIN, SEEDS, &c.





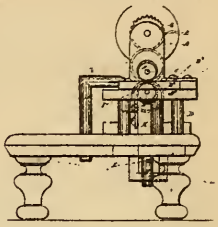
112,351,
CHARLES F. JACOBSEN.
CHANDELIERS.



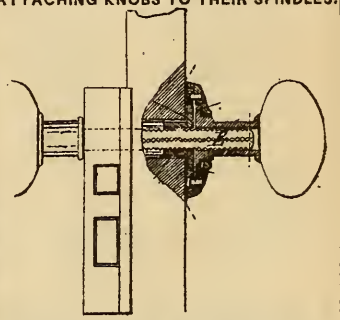


112,352.
CARRIE JESSUP.
CULINARY VESSELS.

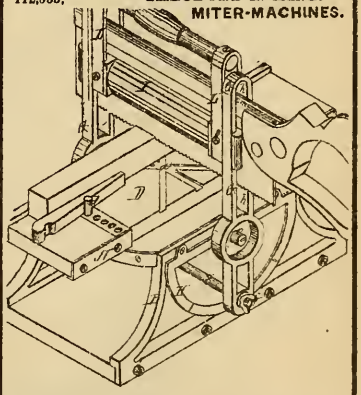
112,353 ABERDEEN KEITH.
MACHINES FOR CUTTING LEATHER.



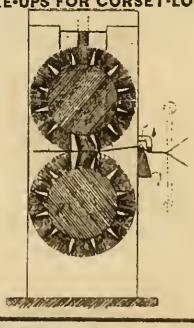
112,354, JOHN F. KELLER.
NATHANIEL SEHNER.
ATTACHING KNOBS TO THEIR SPINDLES.



112,355, THEODORE E. KING.
MITER-MACHINES.



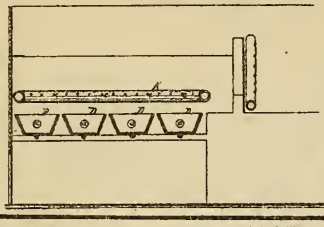
112,356, JULIUS KUTTNER.
TAKE-UPS FOR CORSET-LOOMS.



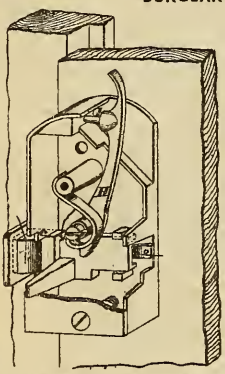
112,357.

TIMOTHY W. LACKORE.
ELEVATORS AND CARRIERS.

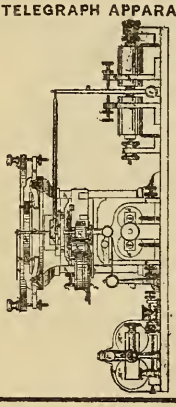
112,358 JAMES R. LEE.
APPARATUS FOR BURNING HYDROCARBON OILS.



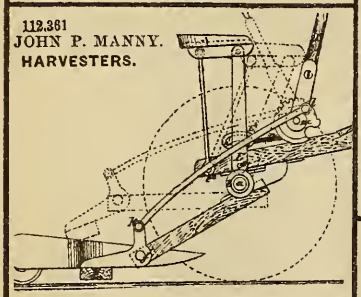
112,359, ROBERT LEE.
BURGLAR-ALARMS.



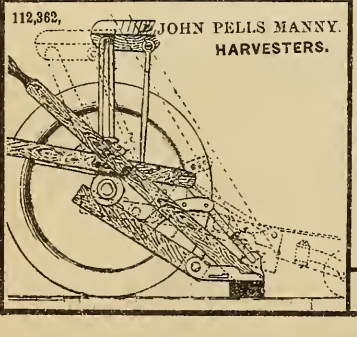
112,360, L. T. LINDSEY.
TELEGRAPH APPARATUS.



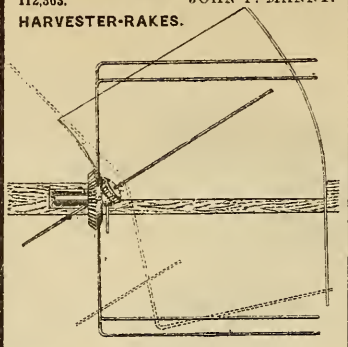
112,361
JOHN P. MANNY.
HARVESTERS.



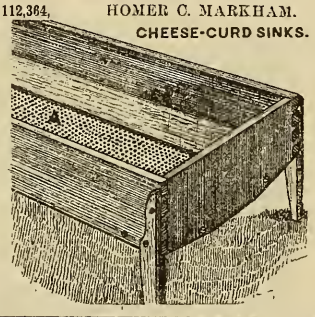
112,362, JOHN PELLS MANNY.
HARVESTERS.



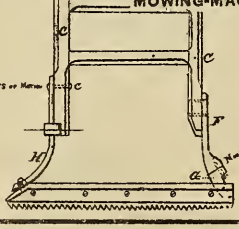
112,363. JOHN P. MANNY.
HARVESTER-RAKES.



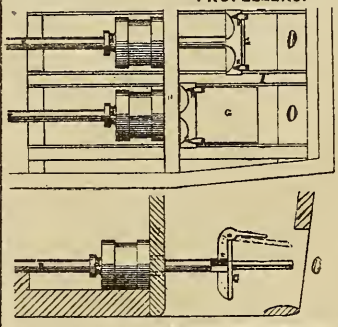
112,364, HOMER C. MARKHAM.
CHEESE-CURD SINKS.



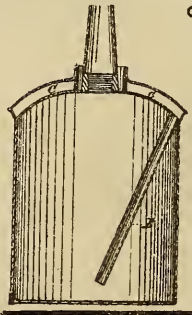
112,365, HOMER C. MARKHAM.
DEWITT C. MARKHAM.
MOWING-MACHINES.



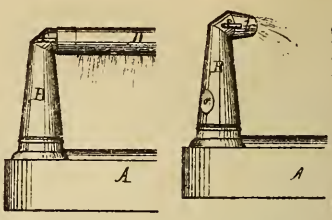
112,366, A. J. MARSHALL.
PROPELLERS.



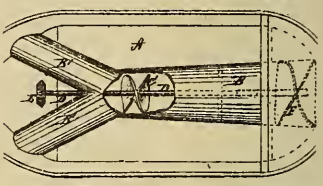
112,367. EDWARD McDUFF.
EMORY D. FORROW.
OILERS.



112,368 JOHN McINNES. WASH-BOILERS.

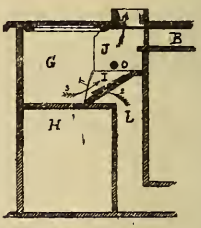


112,369. HARRISON B. MEECH.
PROPELLING CANAL-BOATS.

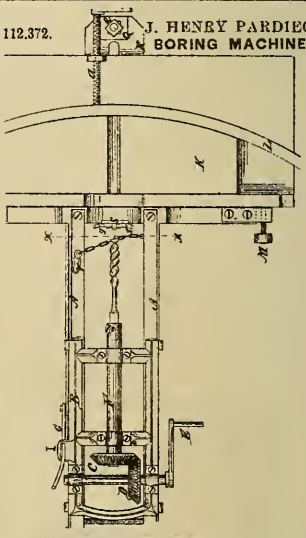


112,370, PETER E. MINOR.
WATER-PROOF COMPOUNDS FOR COATING CLOTH, WOOD, METALS.

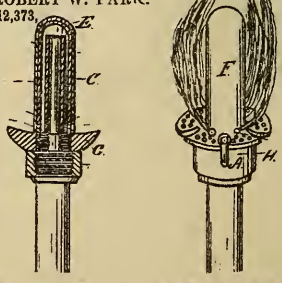
112,371. WILLIAM N. MOORE.
COOKING-STOVES.



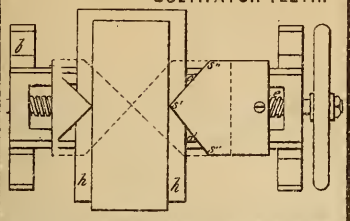
112,372. J. HENRY PARDIECK.
BORING MACHINES.



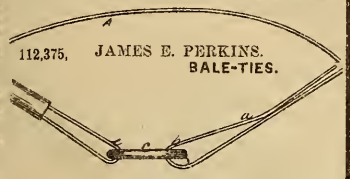
ROBERT W. PARK. VAPOR-BURNERS.
112,373.



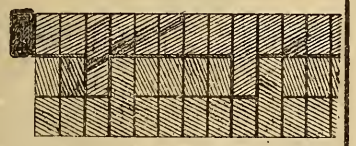
112,374. JOHN PEDDER. GEO. ABEL.
POINTING BLANKS FOR CULTIVATOR-TEETH.



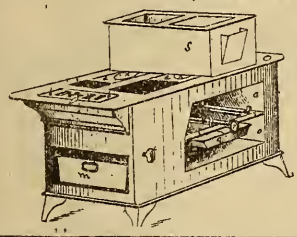
112,375. JAMES E. PERKINS.
BALE-TIES.



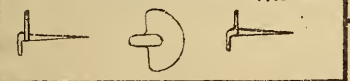
112,376. JAMES PHILLIPS.
LINING WALLS WITH FELT, &c.



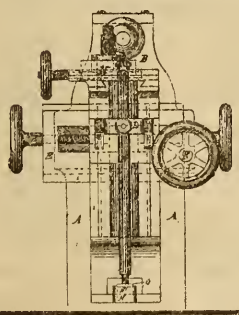
112,377. SAMUEL PIERCE.
COOKING-STOVES.



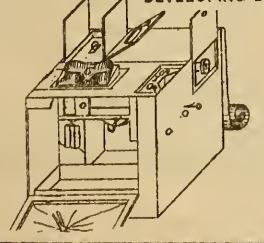
112,378 ASAHEL A. PORTER. TACKS.



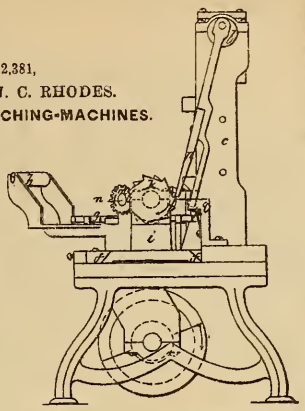
112,379. FRANCIS A. PRATT.
MACHINES FOR SHAPING AND CUTTING GEAR-CUTTERS.



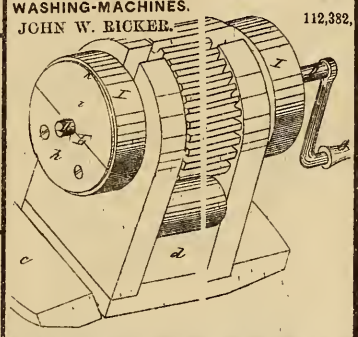
112,380. EANEAS C. RATZELL.
COMBINATION CAMERAS AND DEVELOPING-BOX



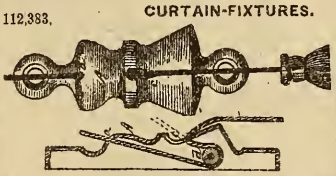
112,381. J. C. RHODES.
PUNCHING-MACHINES.



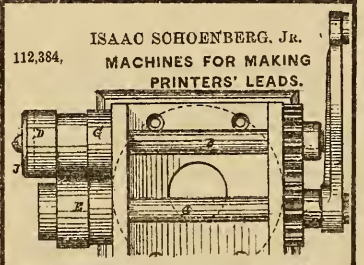
WASHING-MACHINES. 112,382.
JOHN W. RICKER.



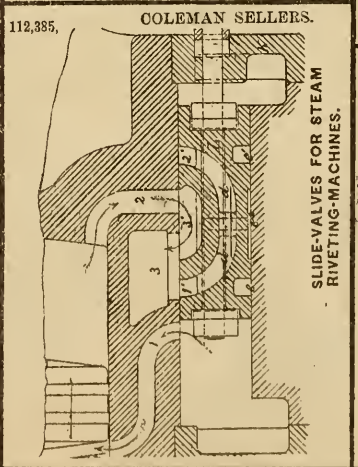
CHARLES ROBIN. 112,383.
CURTAIN-FIXTURES.



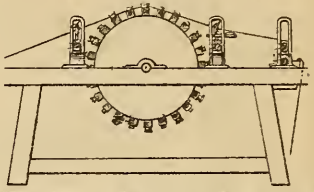
ISAAC SCHOENBERG. JR. 112,384.
MACHINES FOR MAKING PRINTERS' LEADS.



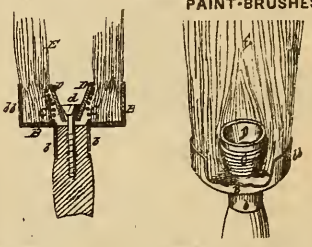
COLEMAN SELLERS. 112,385.
SLIDE-VALVES FOR STEAM RIVETING-MACHINES.



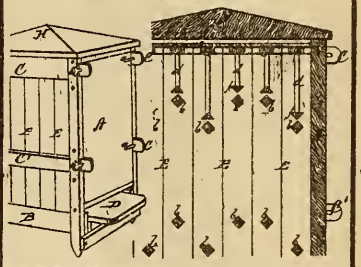
SAMUEL SEMPLE, SR. JOHN SEMPLE. SAMUEL SEMPLE, JR. R. A. SEMPLE. 112,386.
MACHINES FOR POLISHING THREAD.



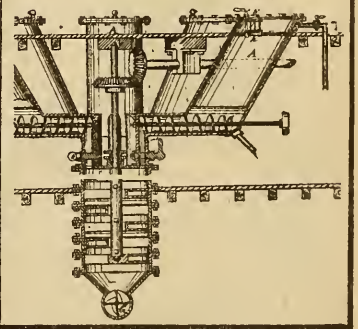
FREDERICK S. SHEARER. 112,387.
PAINT-BRUSHES.



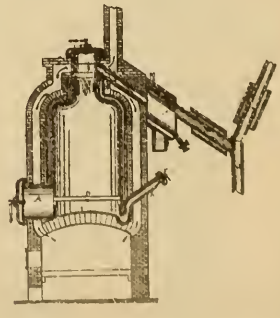
SAMUEL ARCHABALD SHORT. FREDRICK JACKSON SHORT. JOHN BUNION SHORT. JASPER KILE. 112,388.
BEE-HIVES.



THOS. SIM. 112,389.
APPARATUS FOR REMOVING OIL FROM VEGETABLE AND OTHER MATTERS.



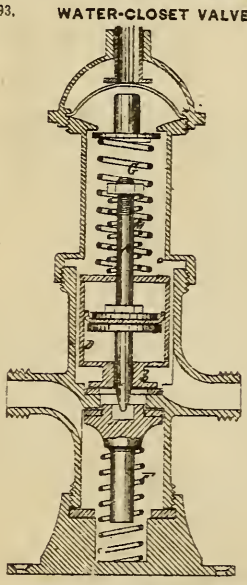
THOS. SIM. 112,390.
RETORTS FOR PRODUCING BISULPHIDE OF CARBON.



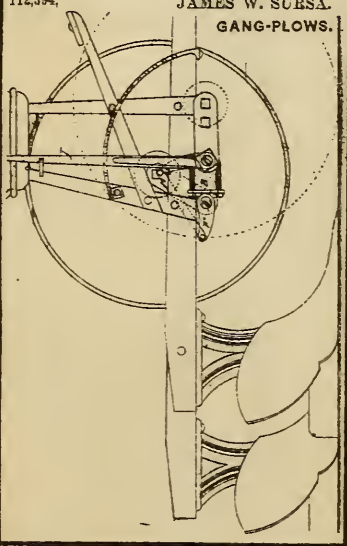
112,391. M. H. SIMPSON.
UTILIZING THE SILKY DOWN OF THE WILD COTTON.

112,392. FRANK SMILEY.
PRUNING-SHEARS.

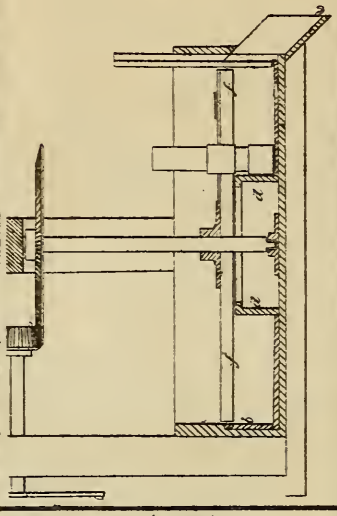
112,393. ALFRED J. SMITH.
WATER-CLOSET VALVES.



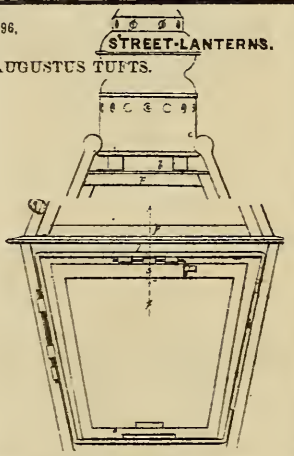
112,394. JAMES W. SURSA.
GANG-PLOWS.



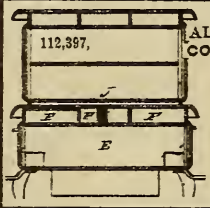
112,395. W. H. THOSS.
GRINDING-PANS AND AMALGAMATORS.



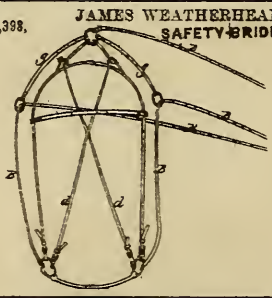
112,396. STREET-LANTERNS.
AUGUSTUS TUFTS.



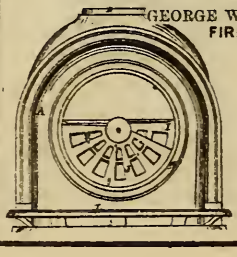
112,397. ALVIN WARREN.
COOKING-STOVES.



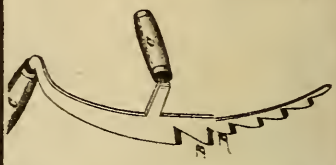
112,398. JAMES WEATHERHEAD.
SAFETY-BRIDLES.



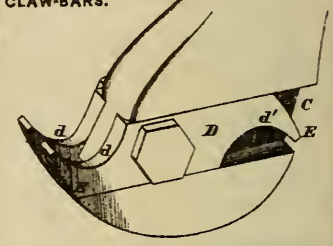
GEORGE WELLHOUSE.
FIRE-GRATES.
112,399.



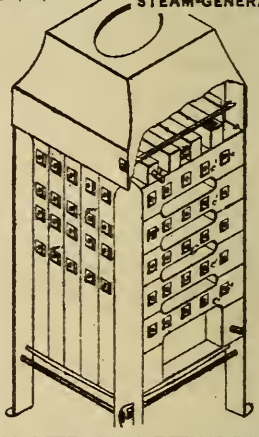
112,400. GEO. F. WEYMOUTH.
HAY-KNIVES.



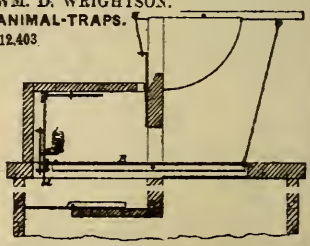
112,401. CHARLES WINTER.
CLAW-BARS.



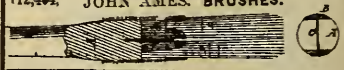
112,402. JOHN C. WOODHEAD.
STEAM-GENERATORS.



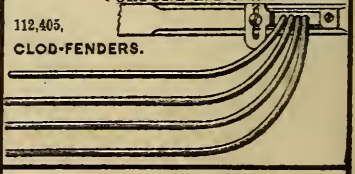
WM. D. WRIGHTSON.
ANIMAL-TRAPS.
112,403.



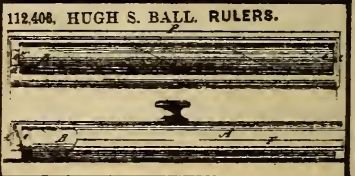
112,404. JOHN AMES. BRUSHES.



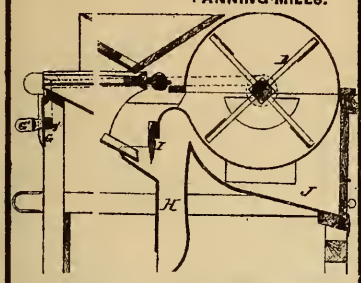
FORTUNE L. BAILEY.
112,405.
CLOD-FENDERS.



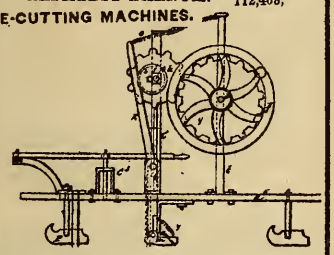
112,406. HUGH S. BALL. RULERS.



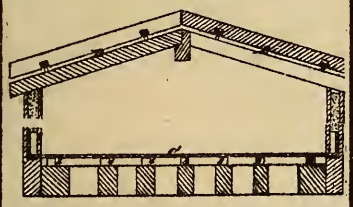
112,407. BENJAMIN BARNEY.
FANNING-MILLS.



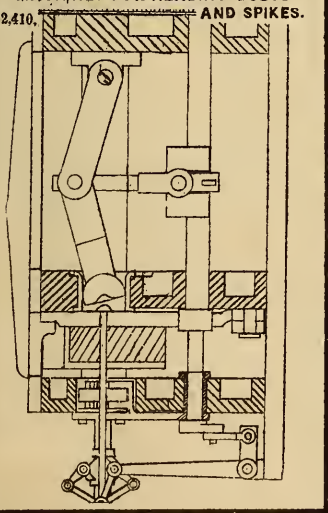
LAFAYETT BARNUM. 112,408.
ICE-CUTTING MACHINES.



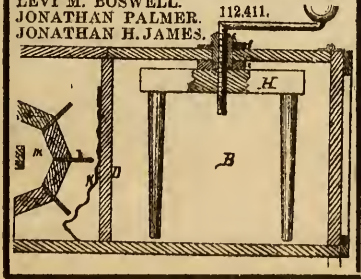
112,409. THOMAS J. BIGGER.
MANUFACTURE OF ICE.



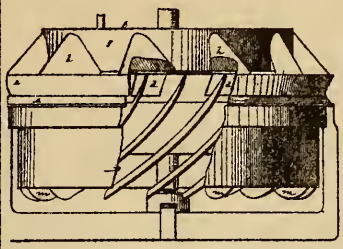
REINHOLD BOEKLEN.
MACHINES FOR HEADING BOLTS AND SPIKES.
112,410.



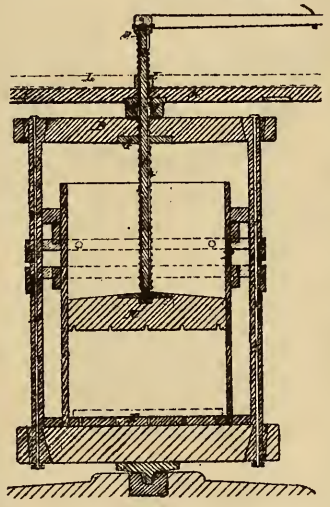
JOSEPH BOSWELL. WASHING-MACHINE
LEVI M. BOSWELL.
JONATHAN PALMER. 112,411.
JONATHAN H. JAMES.



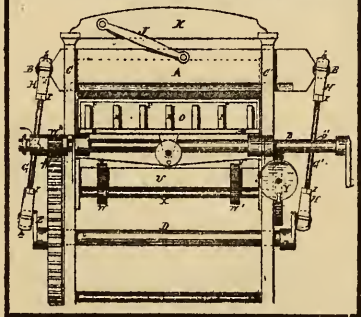
112,412. ELLERY C. BOYLES.
WATER-WHEELS.



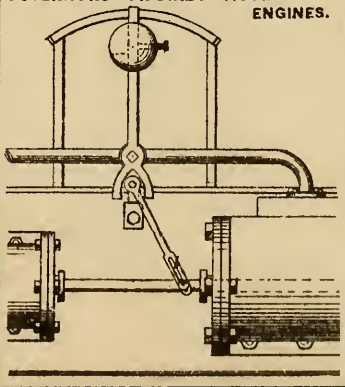
112,413. RHODOM M. BROOKS.
COTTON-PRESSES.



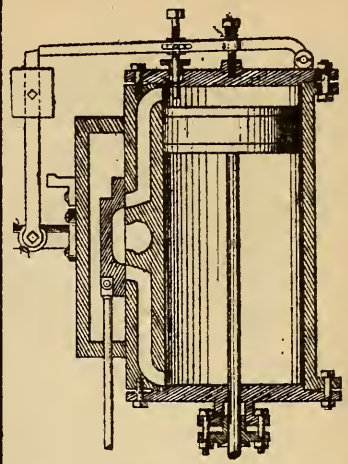
112,414. SAMUEL BROWN.
PAPER-CUTTING MACHINES.



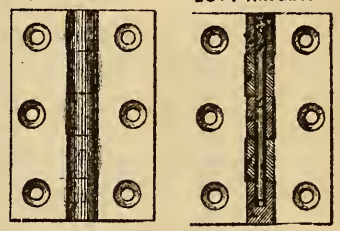
A. S. CAMERON. 112,415.
GOVERNORS FOR DIRECT-ACTING ENGINES.



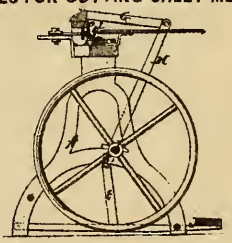
A. S. CAMERON.
GOVERNORS FOR DIRECT-ACTING ENGINES.
112,416.



JOHN W. CARLETON.
112,417. BUTT-HINGES.

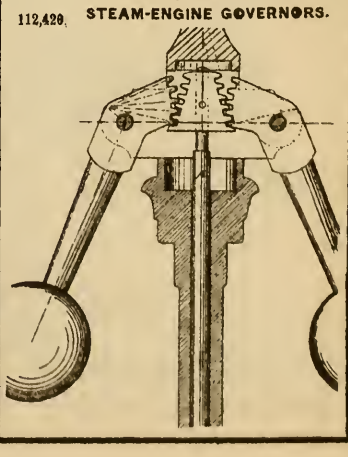


112,418. CHARLES B. CHOATE.
MACHINES FOR CUTTING SHEET METAL

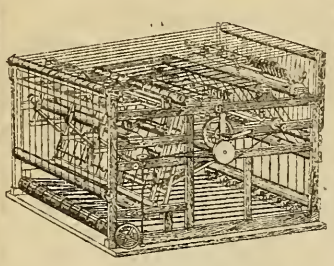


WILLIAM CLEVELAND.
112,419.
BIT-BRACES.

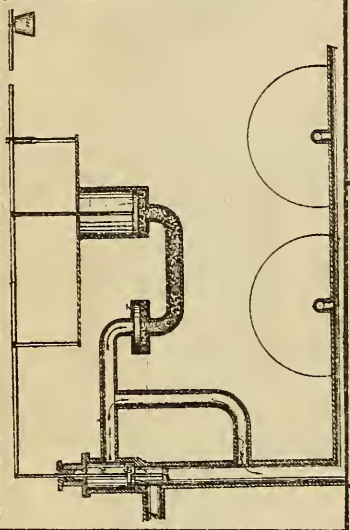
CHAS. A. CONDE.
112,420. STEAM-ENGINE GOVERNORS.



112,421, JOHN CREW CRAFT.
CARPET-CLEANING MACHINES.

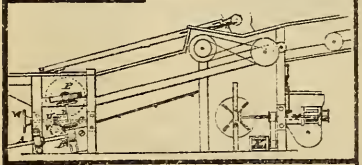


112,422, DANIEL CROSBY.
STEAM-REGULATORS FOR PAPER-DRIER

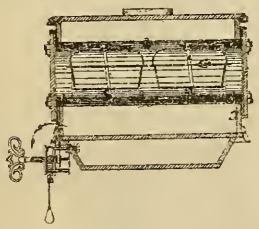


112,423, GEORGE M. CRUICKSHANK.
METALLIC PISTON AND VALVE-ROD PACKINGS.

112,424, JOHN CULHAM
GRAIN-THRASHING AND SEPARATING-MACHINE

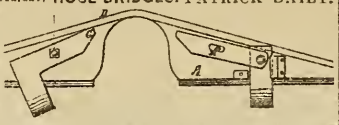


112,425, DAVID CURTIS. COOKING-STOVE

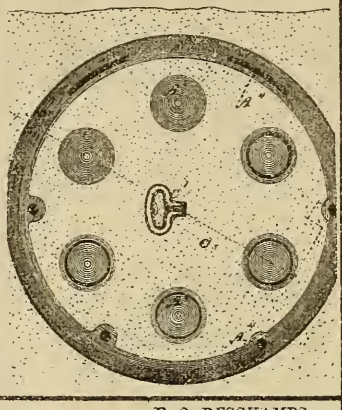


LIGHTNING-RODS.
112,426, SYLVANUS D. CUSHMAN.

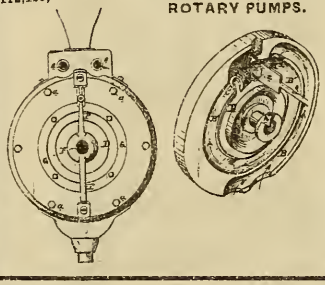
112,427. HOSE-BRIDGES. PATRICK DAILY.



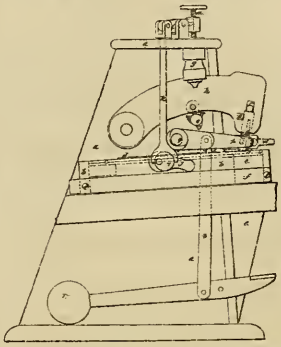
112,428. WILLIAM DALE.
COVERS FOR OPENINGS IN SIDEWALKS.



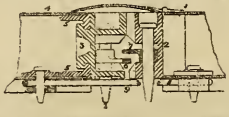
112,429, F. O. DESCHAMPS.
ROTARY PUMPS.



112,430, JAMES DODGE.
MACHINES FOR CUTTING FILES.

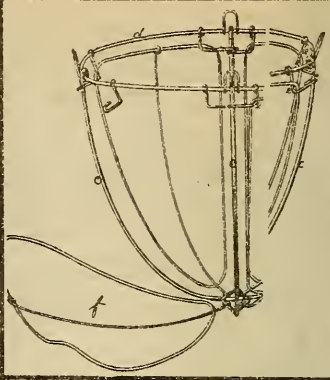


112,431, HENRY DÜBS.
SAMPSON GEORGE GOODALL-COPESTAKE.
COUPLINGS FOR RAILWAY CARS.

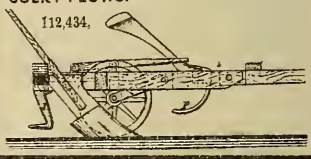


TOBACCO-PIPES. PATRICK J. DWYER.
112,432.

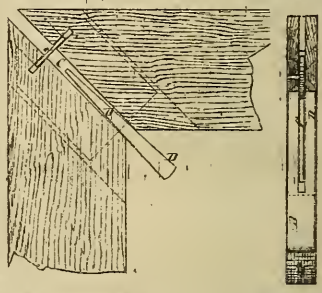
ALBERT P. EASTMAN.
112,433, BASKETS FOR HOUSE-PLANTS.



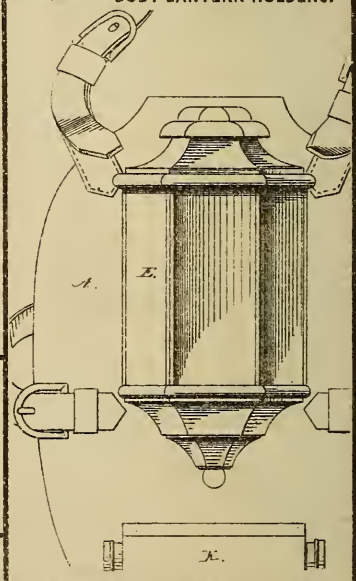
SULKY-PLOWS. MILO A. ELLIOTT.
112,434.



JAMES FAIRMAN.
112,435, STRETCHERS FOR PAINTINGS.

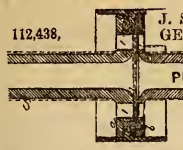


SAML. C. FESSENDEN.
112,436, BODY LANTERN-HOLDERS.

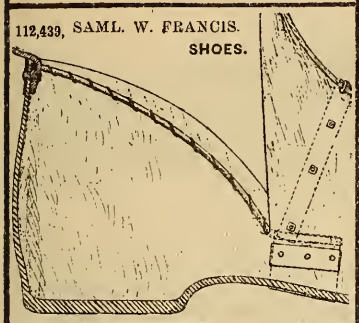


A. L. FINCH.
112,437 STOVE-LEGS.

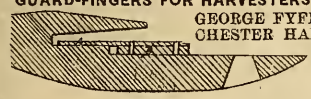
112,438, J. S. FOLLANSBEE, GEORGE DOOLITTLE.
PUMP-PISTONS.



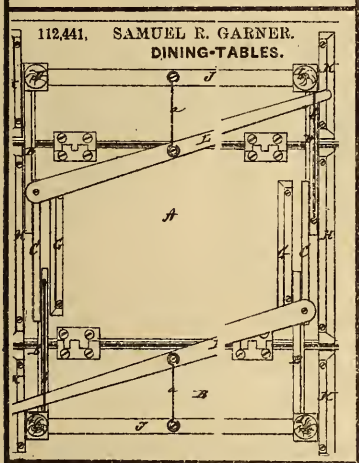
112,439, SAML. W. FRANCIS.
SHOES.



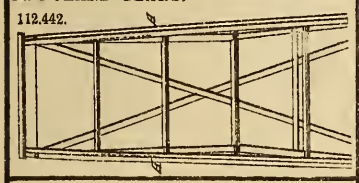
112,440,
GUARD-FINGERS FOR HARVESTERS.
GEORGE FYFE.
CHESTER HARD.



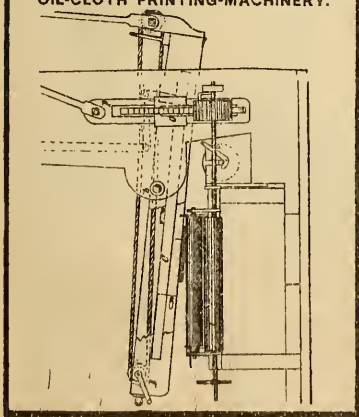
112,441, SAMUEL R. GARNER.
DINING-TABLES.



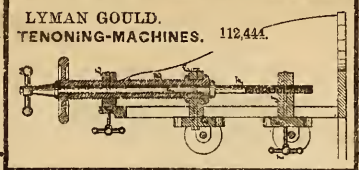
M. BOLAND GEARY. STEP-LADDERS.
112,442.



112,443, EBENEZER A. GOODES.
OIL-CLOTH PRINTING-MACHINERY.

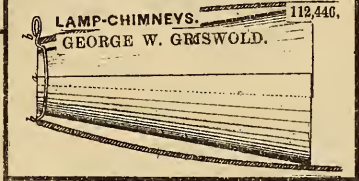


LYMAN GOULD.
TENONING-MACHINES. 112,444.

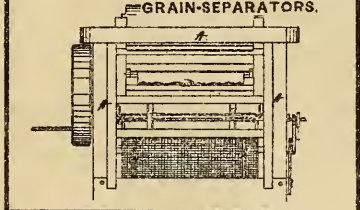


112,445, PRINTERS' CASES.
WILLIAM H. A. GRESHAM.

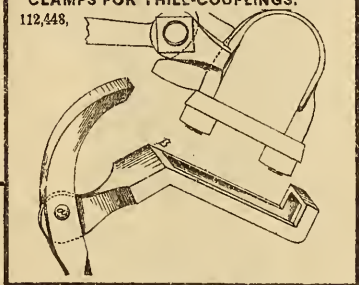
LAMP-CHIMNEYS. 112,446,
GEORGE W. GRISWOLD.



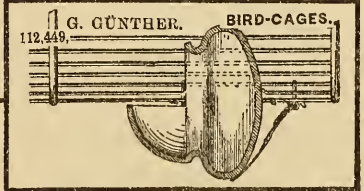
112,447, PHILANDER GRISWOLD
GRAIN-SEPARATORS.



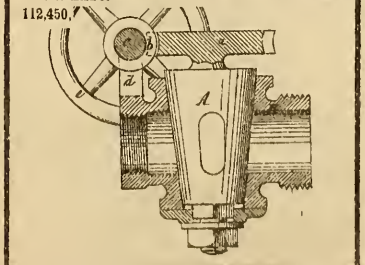
JOHN W. GUIDER.
CLAMPS FOR THILL-COUPLINGS.
112,448,



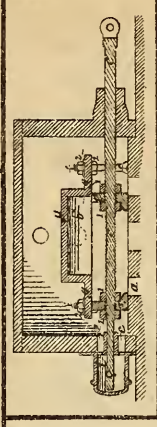
G. GÜNTHER. BIRD-CAGES.
112,449,



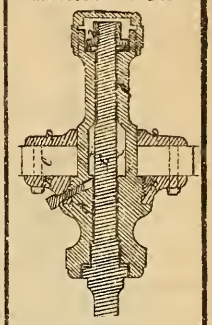
WM. HAAS. STOP-COCKS AND VALVES.
112,450,



112,451. JOS. L. HARLEY.
XAVER FENDRICH
VALVES FOR STEAM-ENGINES.

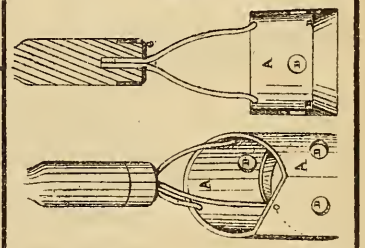


112,452.
JOHN H. HARPER.
METALLIC HUBS.

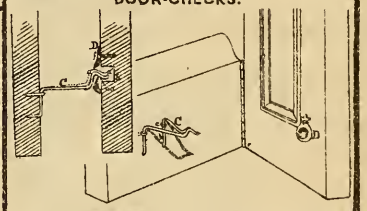


112,453, EDM. Q. HENDERSON.
COMPOSITIONS FOR LUBRICATING MACHINERY.

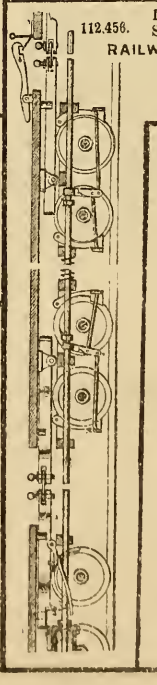
112,454, BRYANT B. HERRICK.
POST-HOLE DIGGERS.



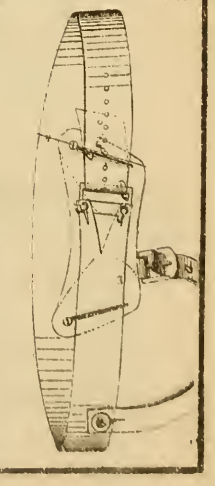
112,455, LEVI S. HICKS.
DOOR-CHECKS.



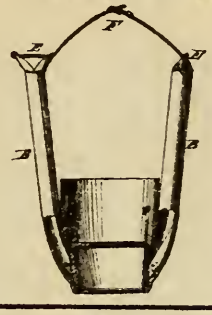
112,456. LUTHER HILL.
SETH D. TRIPP.
RAILWAY-CAR BRAKES.



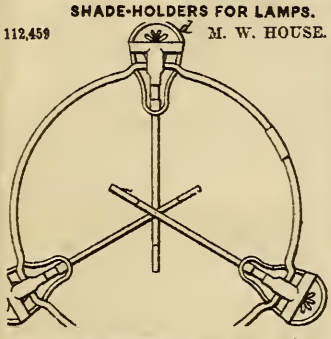
112,457,
ADAM HINOULT.
TRUSSES.



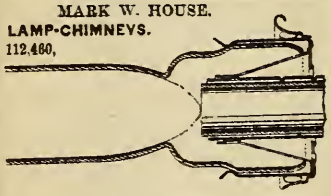
112,458, W. A. HOUGH.
FEED-BAGS FOR HORSES.



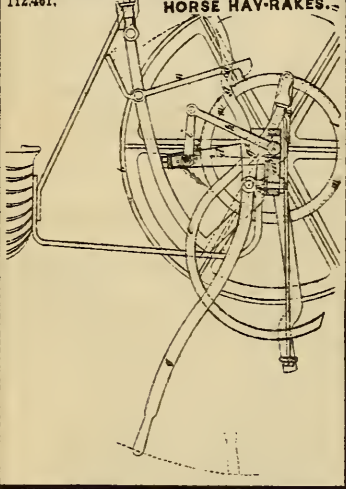
SHADE-HOLDERS FOR LAMPS.
112,459 M. W. HOUSE.



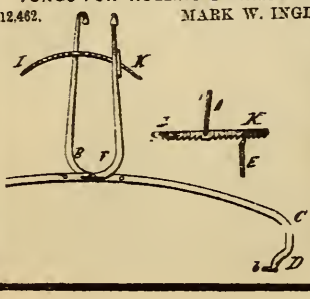
MARK W. HOUSE.
LAMP-CHIMNEYS.
112,460,



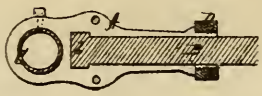
JAMES HOWARD.
EDWARD TENNEY BOUSFIELD.
112,461, HORSE HAY-RAKES.



TONGS FOR ROLLING BARRELS.
112,462. MARK W. INGLE.

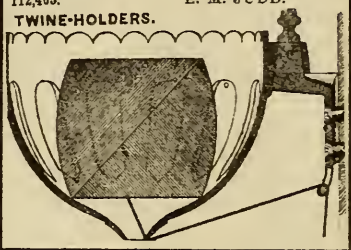


112,463, PITMEN. GEORGE W. JASON.

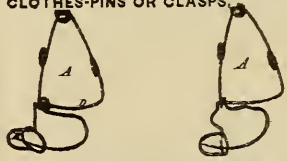


112,464, JOHN JONES.
PASTES FOR PAPER-HANGINGS.

112,465. E. M. JUDD.
TWINE-HOLDERS.

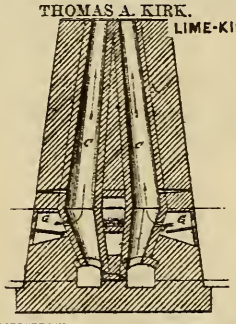


112,466, A. L. KEEPORTS.
WILLIAM YOUNT.
CLOTHES-PINS OR CLASPS.

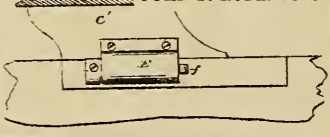


112,467, SAMUEL EDWARD KELLY.
PUTTING UP HAMS.

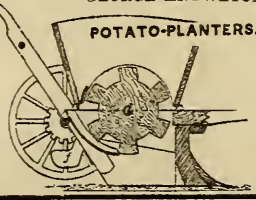
112,468, THOMAS A. KIRK.
LIME-KILNS.



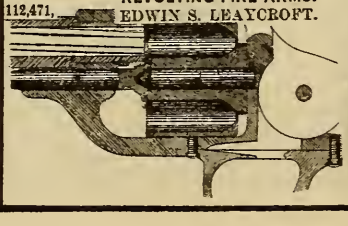
112,469. FASTENINGS FOR SEATS
FOR WAGONS OR SLEIGHS.
JOHN G. KNAPP.
JOHN F. ROBERTSON.



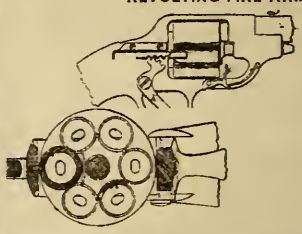
GEORGE KNOWLTON.
112,470, POTATO-PLANTERS.



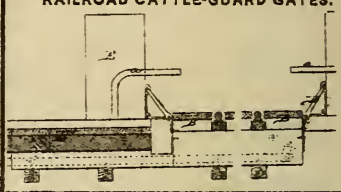
REVOLVING FIRE-ARMS.
112,471, EDWIN S. LEAYCROFT.



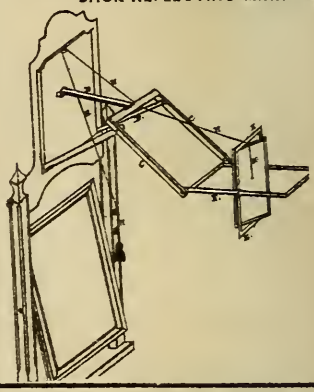
112,472, EDWIN S. LEAYCROFT.
REVOLVING FIRE-ARMS.



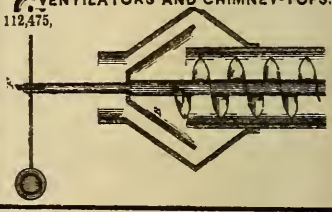
112,473. JAMES H. MALLORY.
RAILROAD CATTLE-GUARD GATES.



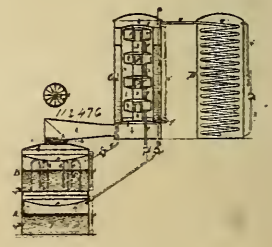
112,474 RICHARD MASON.
BACK-REFLECTING MIRRORS.



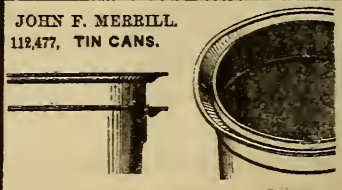
JAMES McGOWAN.
VENTILATORS AND CHIMNEY-TOPS.
112,475,



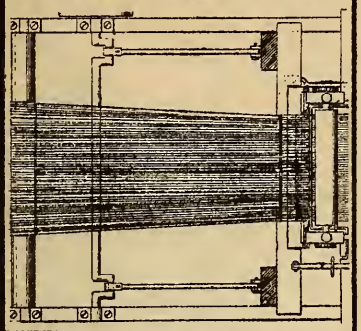
FREDK. MEASEY.
112,476, APPARATUS FOR RECTIFYING
AND REFINING SPIRITS.



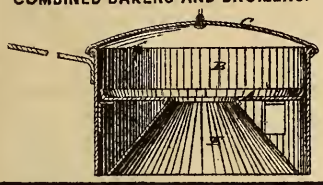
JOHN F. MERRILL.
112,477, TIN CANS.



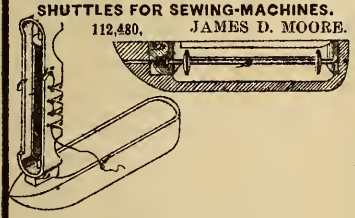
112,478. JOHN MICHNA. GEORGE FISCHER.
TAKE-UP MECHANISMS FOR LOOMS.



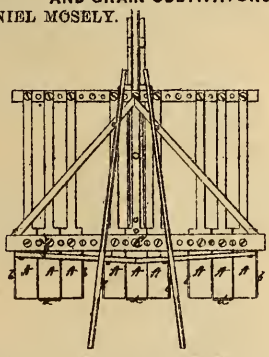
112,479. W. H. MILLER.
COMBINED BAKERS AND BROILERS.



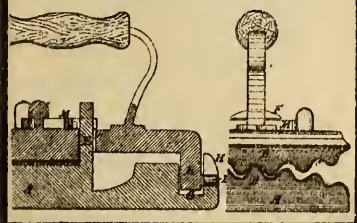
SHUTTLES FOR SEWING-MACHINES.
112,480. JAMES D. MOORE.



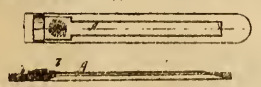
112,481. COTTON-CHOPPERS AND GRAIN-CULTIVATORS
DANIEL MOSELY.



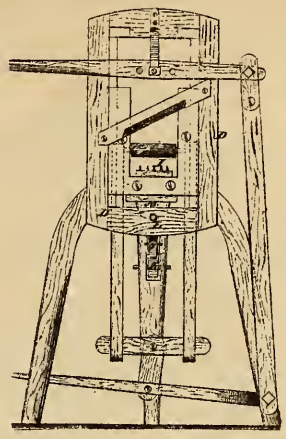
112,482. FREDERICK MYERS.
SAD AND FLUTING-IRONS.



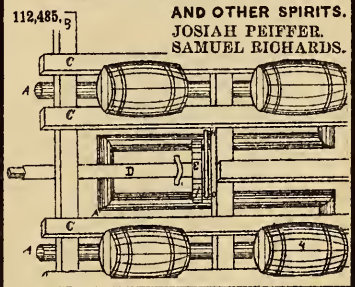
112,483. AUGUSTUS NEWELL.
REEDS FOR ORGANS AND MELODEONS.



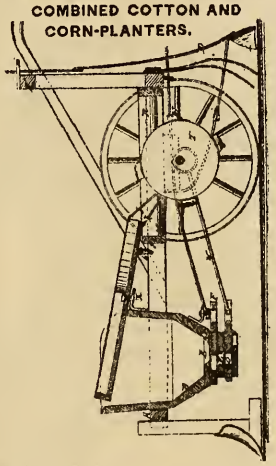
112,484. AMON PARK. STRAW-CUTTERS.



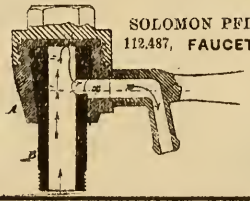
APPARATUS FOR AGING WHISKY AND OTHER SPIRITS.
112,485. JOSIAH PEIFFER. SAMUEL RICHARDS.



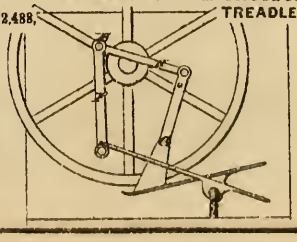
112,486. LOUIS A. PERRAULT.
COMBINED COTTON AND CORN-PLANTERS.



SOLOMON PFLEGER.
112,487. FAUCETS.

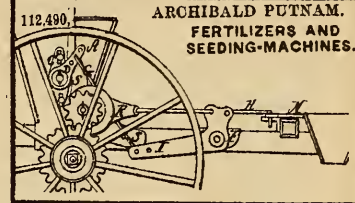


GEORGE KENDALL PROCTOR.
112,488. TREADLES.

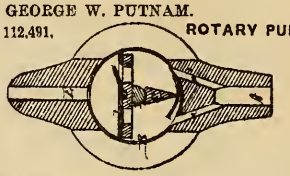


112,489 VICTORY PURDY.
LUBRICATING COMPOUNDS.

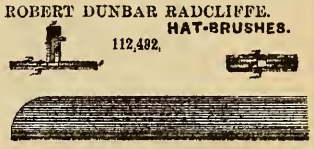
ARCHIBALD PUTNAM.
112,490. FERTILIZERS AND SEEDING-MACHINES.



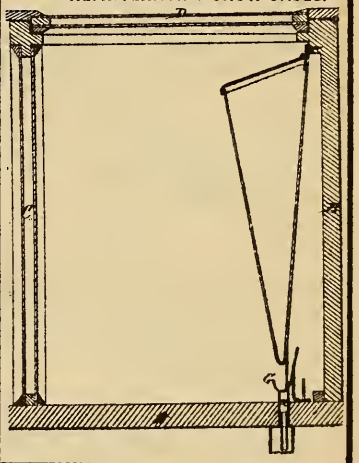
GEORGE W. PUTNAM.
112,491. ROTARY PUMPS.



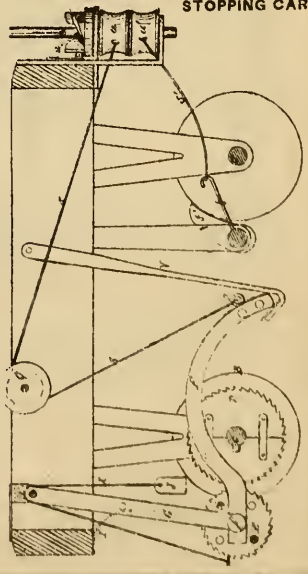
ROBERT DUNBAR RADCLIFFE.
HAT-BRUSHES.
112,492.



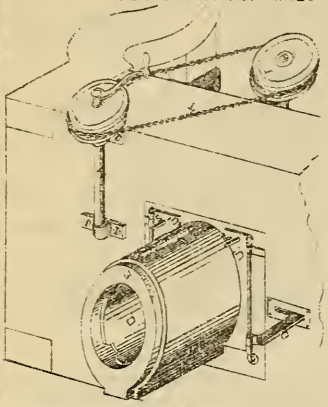
THOS. L. RANKIN.
112,493. REFRIGERATING SHOW-CASES.



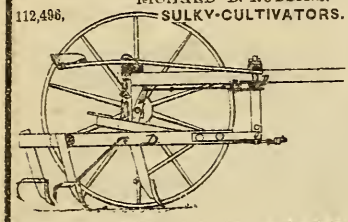
112,494. PHILIP RHOADS.
DEVICES FOR STARTING AND STOPPING CARS.



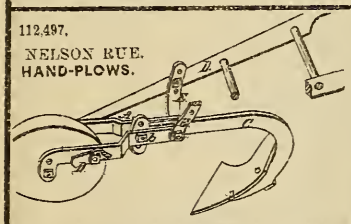
112,495. GEO. RICHARDSON. PIPE-MOLDING MACHINES



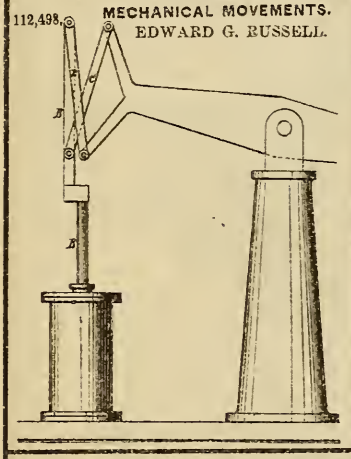
112,496. RICHARD B. ROBBINS. SULKY-CULTIVATORS.



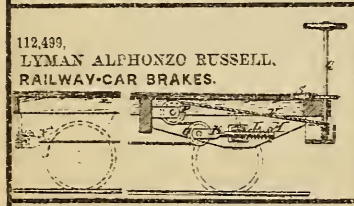
112,497. NELSON RUE. HAND-PLOWS.



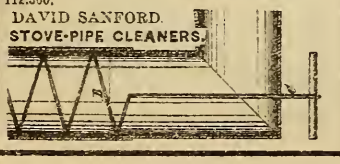
112,498. MECHANICAL MOVEMENTS. EDWARD G. RUSSELL.



112,499. LYMAN ALPHONZO RUSSELL. RAILWAY-CAR BRAKES.

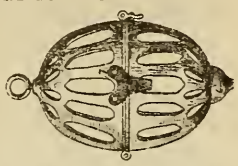


112,500. DAVID SANFORD. STOVE-PIPE CLEANERS.

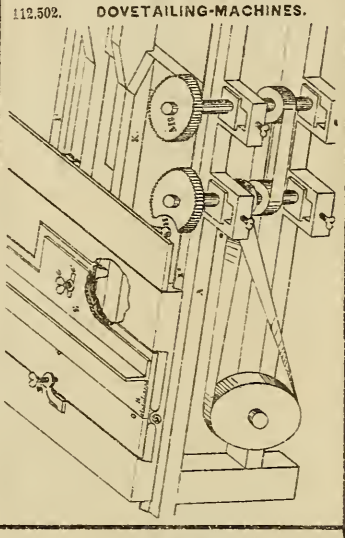


J. B. SARGENT. PURMORT BRADFORD. TWINE-HOLDERS.

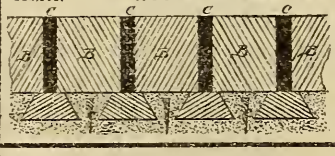
112,501.



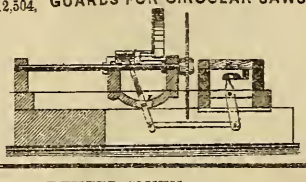
112,502. JAMES M. SEYMOUR. DOVETAILING-MACHINES.



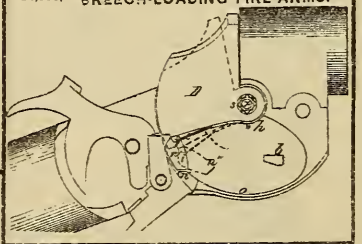
112,503. EATON SHAW. WOODEN PAVEMENTS.



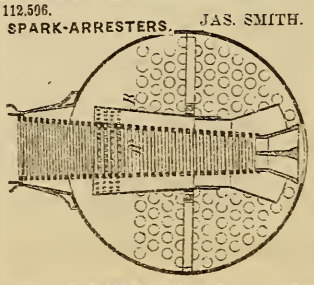
112,504. GEORGE W. SHIPMAN. GUARDS FOR CIRCULAR SAWS.



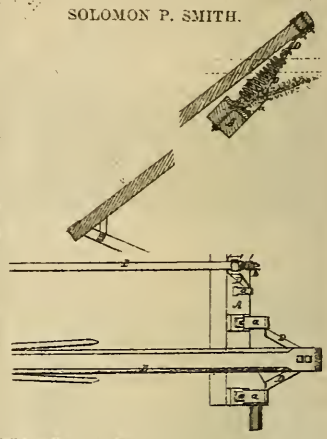
112,505. DEXTER SMITH. MARTIN J. CHAMBERLIN. BREECH-LOADING FIRE-ARMS.



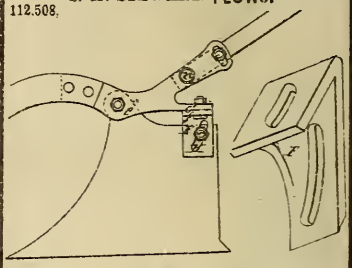
112,506. SPARK-ARRESTERS. JAS. SMITH.



112,507. HORSE HAY-RAKES. SOLOMON P. SMITH.

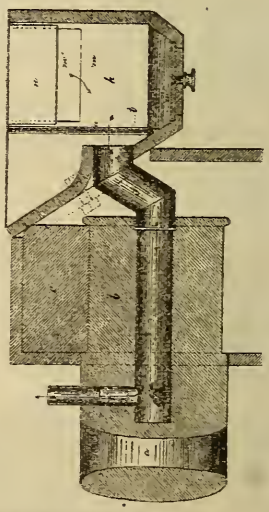


112,508. S. M. STEWART. PLOWS.

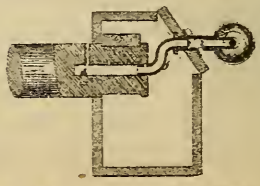


112,509. GEORGE E. SWAN. MEDICAL COMPOUNDS FOR TREATING FEVER AND AGUE.

112,510. HENRY G. THOMPSON. DEVICES FOR COOLING JOURNALS OF CAR-AXLES.

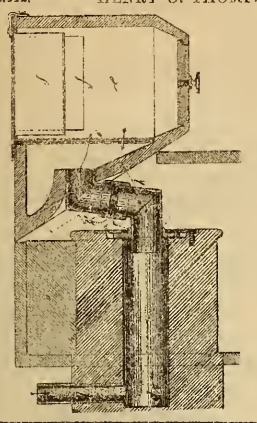


112,511. HENRY G. THOMPSON. COOLING JOURNALS OF CAR-AXLES.



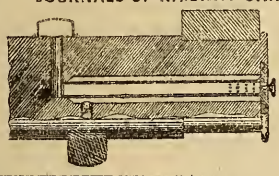
112,512. HENRY G. THOMPSON.

COOLING JOURNALS OF CAR-WHEEL AXLES.



112,513. HENRY G. THOMPSON.

DEVICES FOR COOLING JOURNALS OF RAILWAY CARS.

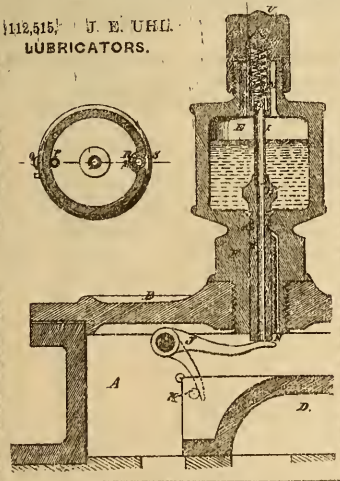


NON-HEATING HANDLES FOR SAD-IRONS.

WM. H. TOWERS. 112,514.

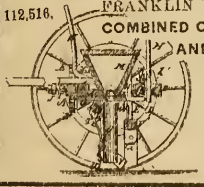
112,515. J. E. UHL.

LUBRICATORS.



112,516. FRANKLIN UNDERWOOD.

COMBINED CORN-PLANTERS AND CULTIVATORS.

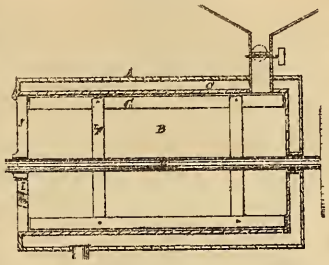


112,517. KING-BOLTS.

WENDEL VONDERSAAR.

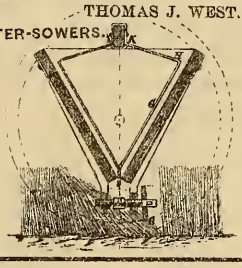
GEO. W. WAITT.

112,518. WHEAT-ROASTERS.



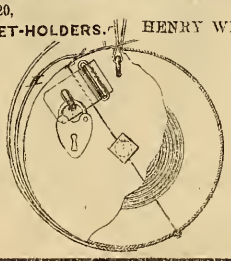
112,519. THOMAS J. WEST.

PLASTER-SOWERS.



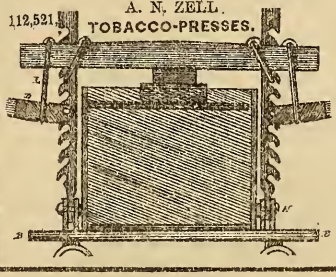
112,520. HENRY WEXEL.

TICKET-HOLDERS.



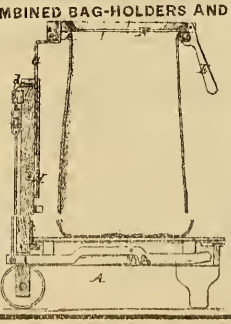
112,521. A. N. ZELL.

TOBACCO-PRESSES.



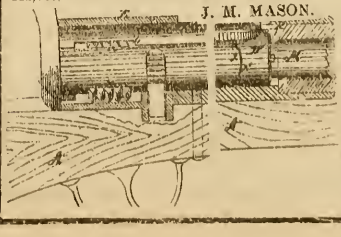
112,522. WILLIAM ZIMMERMAN.

COMBINED BAG-HOLDERS AND SCALES.



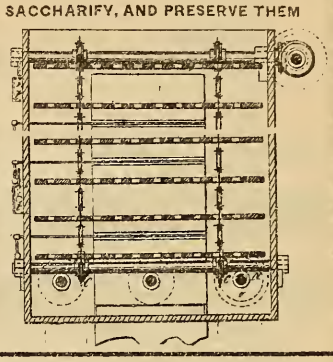
112,523. BREECH-LOADING FIRE-ARMS.

J. M. MASON.



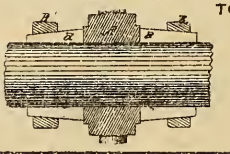
4,287. CHARLES ALDEN.

TREATING FRUITS TO DRY, SACCHARIFY, AND PRESERVE THEM



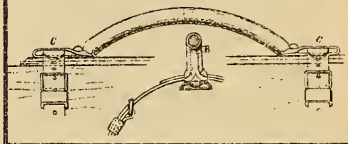
4,288. JOHN H. BUCKMAN.

DEVICES FOR SECURING PULLEYS TO SHAFTS.



4,289. GEO. CROUCH.

SHAWL-STRAPS.



4,290. NEHEMIAH T. FOLSOM.

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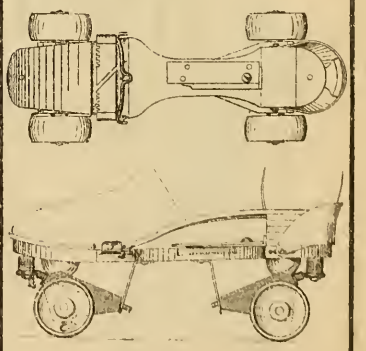
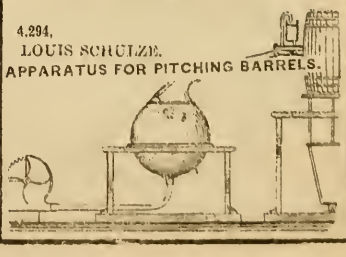
4,291. PESSARIES. W. R. GARDNER.

4,292 4,293. SKATES. JAMES L. PLIMPTON.



4,294. LOUIS SCHULZE.

APPARATUS FOR PITCHING BARRELS.



ILLUSTRATIONS OF PATENTS

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MARCH 14, 1871.

112,524, JOHN R. ACHENBACH.
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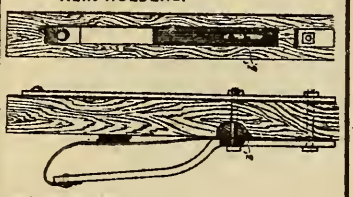

112,525, GEORGE A. ALBERTSON.
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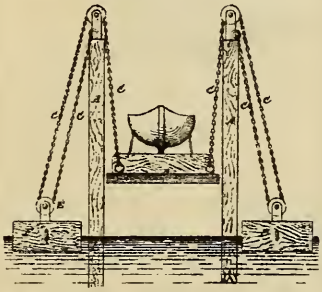

112,526, ELIAS B. ALLEN.
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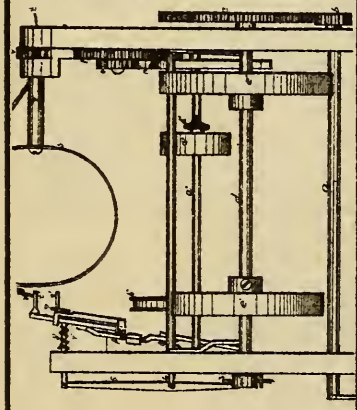
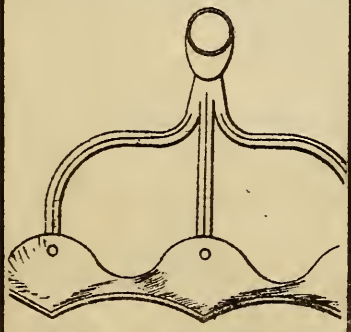


112,527, JOHN P. AVERY. GARDEN-HOES.



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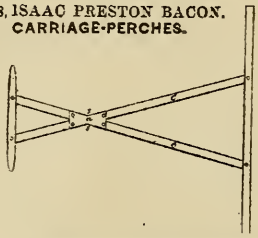

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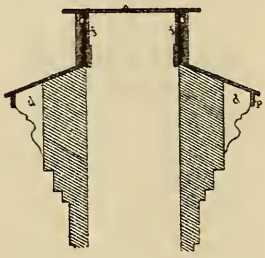

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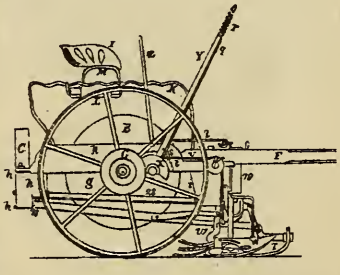
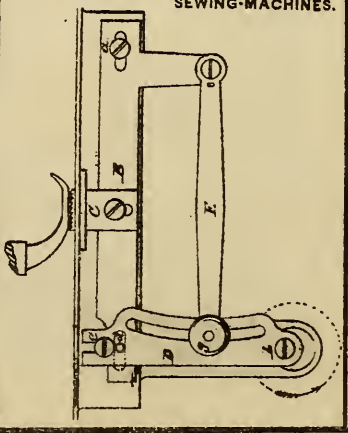


112,531, ROBERT M. BERRY.
FEEDING MECHANISMS FOR SEWING-MACHINES.



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THEODORE S. LINGENFELTER.
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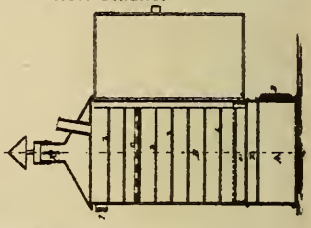
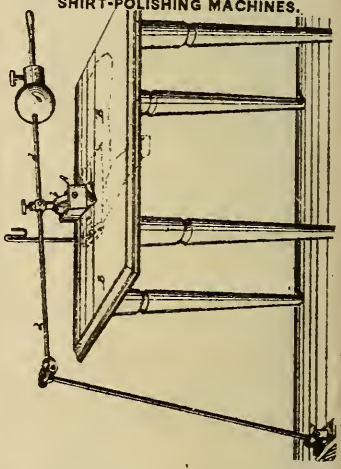


112,533, E. B. BLACKWELL.
SHIRT-POLISHING MACHINES.



112,534 EDUARDO BONNEVAL.
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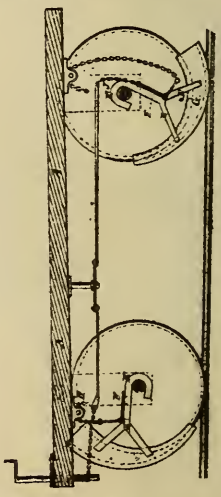

112,535, GUST. BOUEGADE.
TREATING MARINE PLANTS TO OBTAIN GELATINE, &c.

112,536. GODFREY BRENNER.
GEORGE T. POLK.
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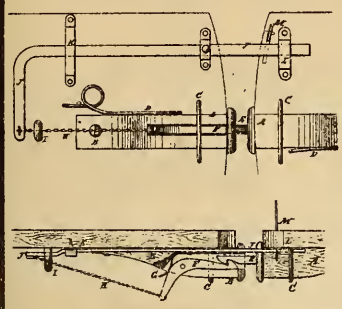
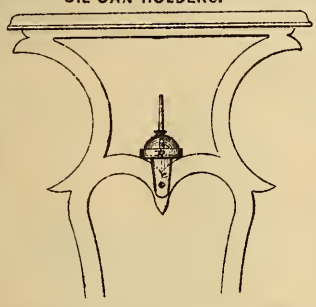
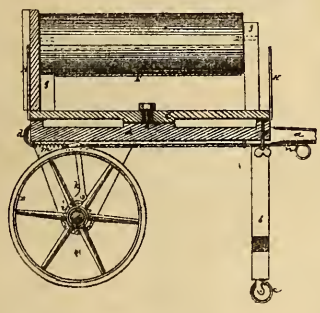


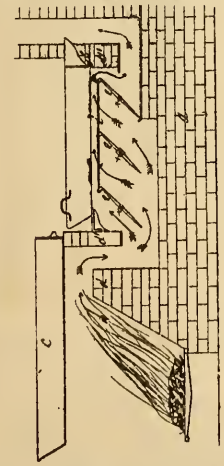
112,537. WILLIAM STODDARD BRICK.
OIL-CAN HOLDERS.



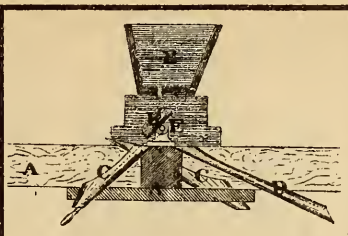
112,538. DANIEL W. BROWN.
APPARATUS FOR CARRYING DRAIN-PIPES.



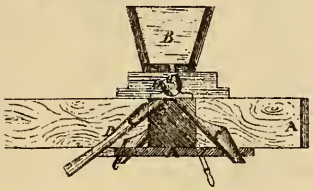
112,539. F. G. BUTLER.
APPARATUS FOR EVAPORATING SACCHARINE LIQUIDS.



112,540. J. E. BUXTON
COMBINED DRILLS AND SEEDERS.



112,541. J. E. BUXTON.
SEEDING-MACHINES.



112,542. JOSEPH T. CAPEWELL.
GEORGE D. CAPEWELL.
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112,543. EDWARD CARD.
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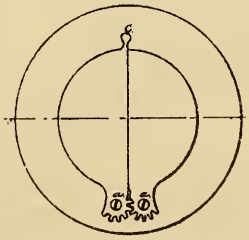

112,544 THOMAS CARSON.
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112,545. JOEL T. CASE.
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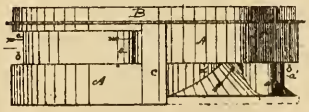
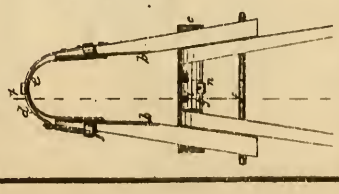


112,546. H. F. CHAPIN
ANIMAL POKES.



112,547. ANDREW JACKSON CHASE.
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112,548. ROBERT CHAUNCEY.
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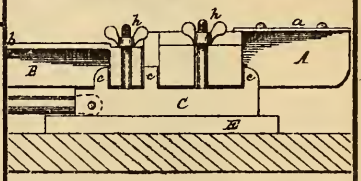

112,549 RICHARD A. CLARK.
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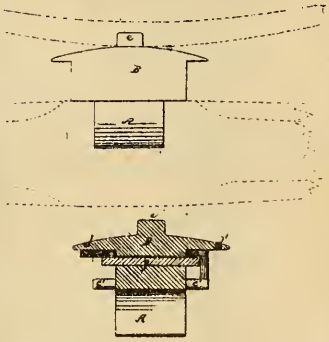

112,550. ROBERT J. CLAY.
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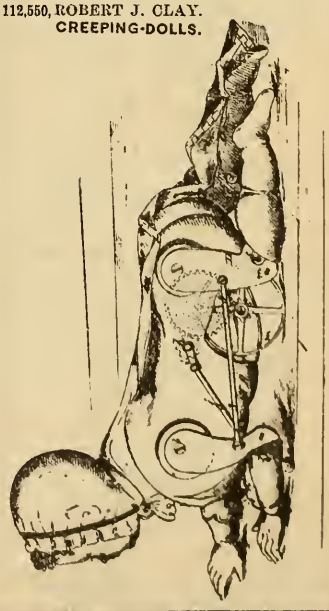

112,551, CHARLIE B. COLE.
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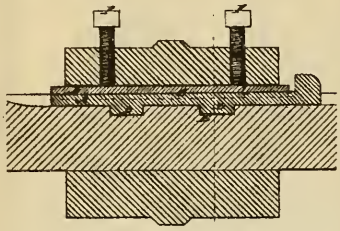

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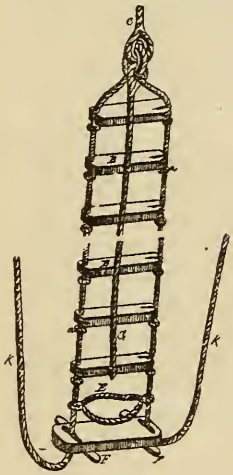

112,553, E. A. CONNER.
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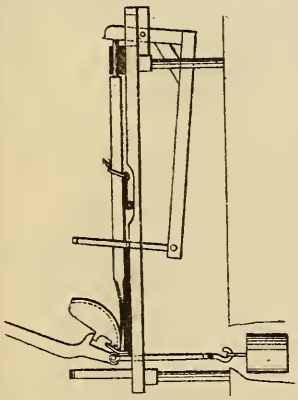

112,554, LYMAN A. COOK.
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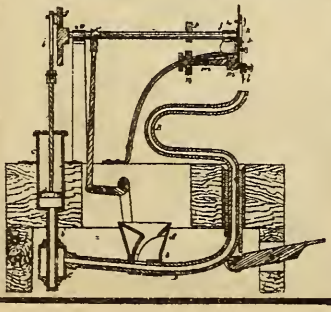

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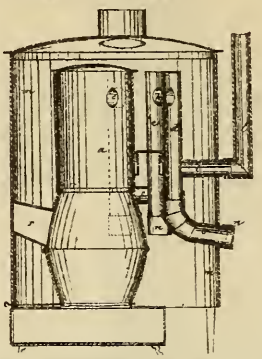

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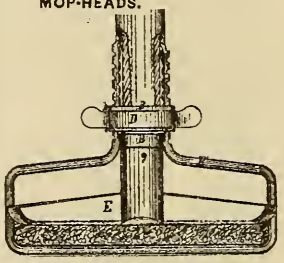

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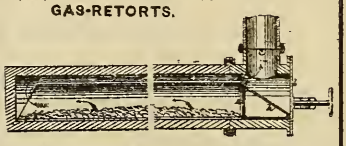

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112,559, SAMUEL DICKSON.
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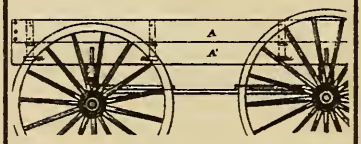

112,560. ANDREW DIETZ.
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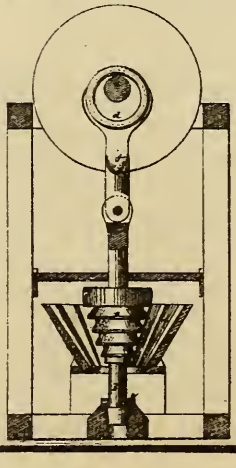

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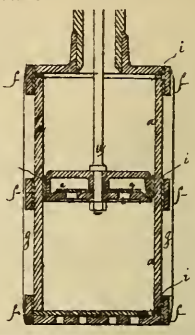

112,562, DANIEL A. DRAPER.
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112,563, HENRY J. DREW.
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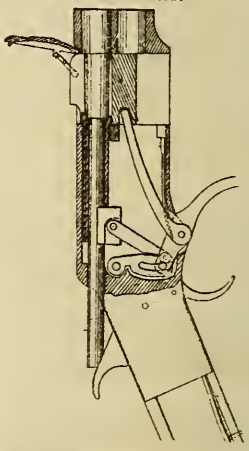

112,564, HENRY J. DREW.
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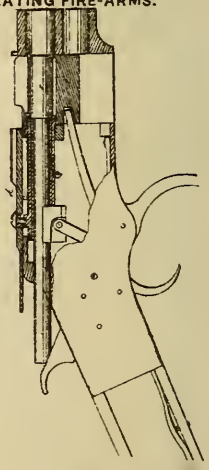
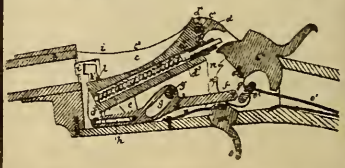
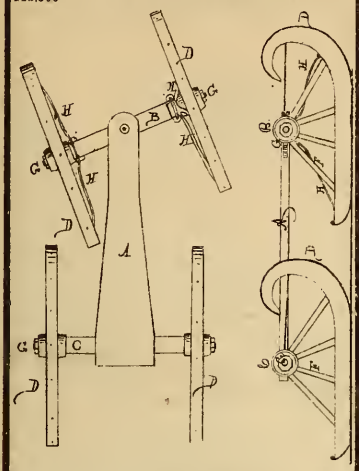


112,565. JOSEPH DUVAL.
BREECH-LOADING FIRE-ARMS.



112,566 ROBERT ELLIOTT. SLEIGHS.



112,567. DE WITT C. ELLIS.
GEORGE N. DEMING
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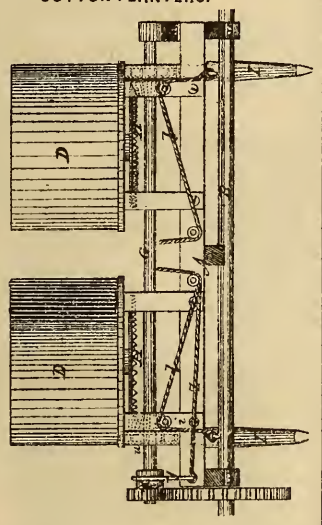

112,568, EDWARD S. ELLIS.
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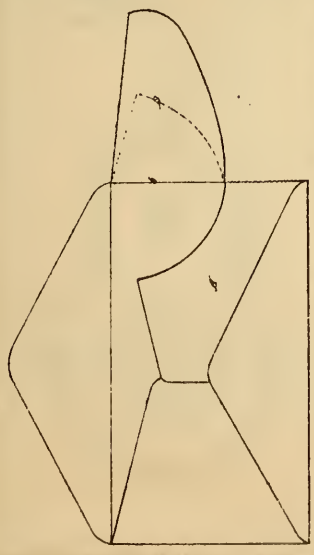
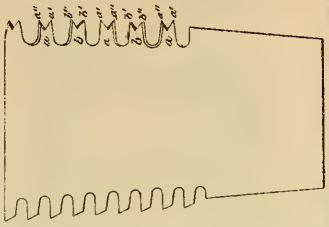


112,569. JAMES E. EMERSON. SAWS.



112,570. GEORGE W. ENNIS.
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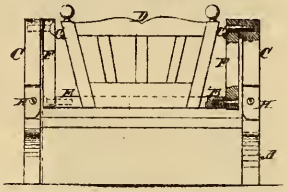
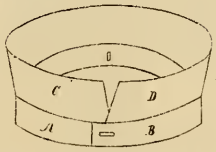
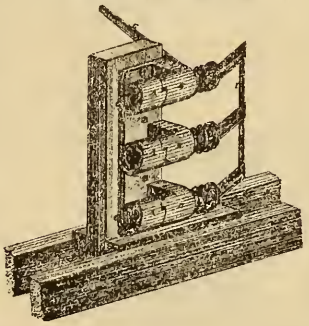


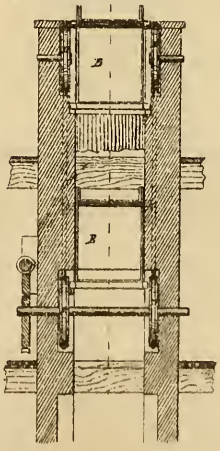
112,571. NATHL. EVANS, Jr.
PAPER-COLLARS.



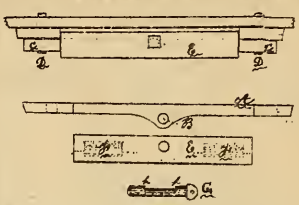
112,572 JOHN S. EVERITT.
CHARLES H. AVERY.
HEAD-BLOCKS FOR SAW-MILLS.



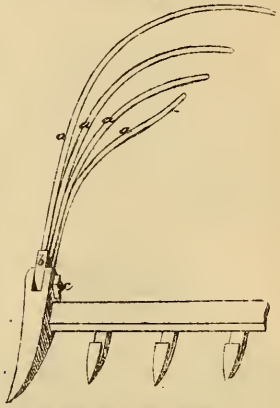
112,573 ZEBULON C. FAVOR.
ELEVATORS.



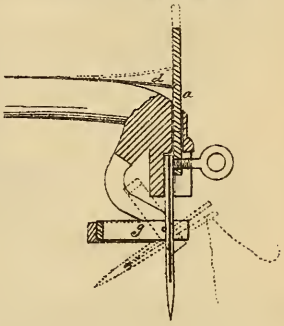
112,574, LYMAN FAY.
NUT-LOCKS.



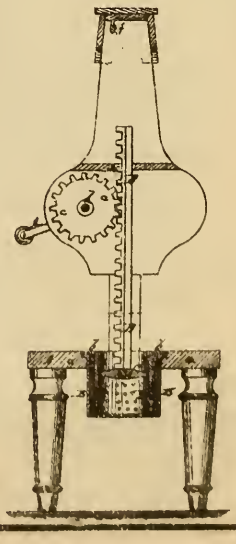
112,575, HENRY FELLOWS.
TRACK-CLEARERS.



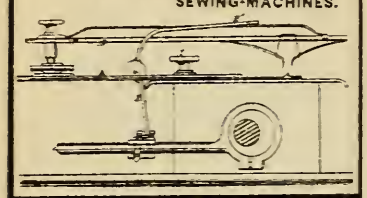
112,576, GEORGE M. FRABY.
NEEDLES AND HOLDERS FOR
SEWING-MACHINES.



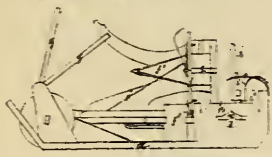
112,577, CHARLES ADOLPH FREDERICK.
POTATO-MASHERS.



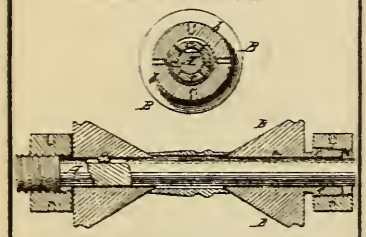
112,578. H. W. FULLER.
TUCK-CREASERS FOR SEWING-MACHINES.



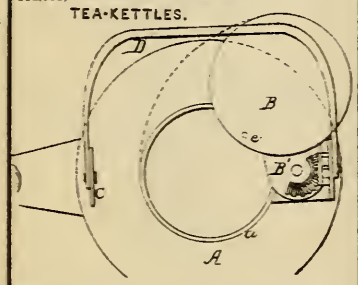
112,579. SOLOMON FULLER.
MOWING-MACHINES.



112,580. JAMES GALLATIN, Jr.
UNIVERSAL MANDRELS.

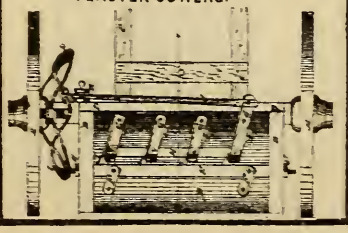


112,581. PETER V. B. GANTZ.
TEA-KETTLES.

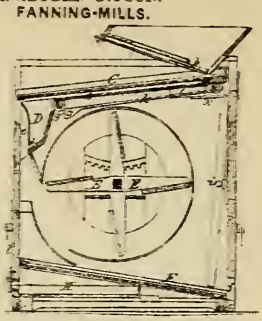


112,582. THOMAS GARRICK.
HARVESTER-CUTTERS.

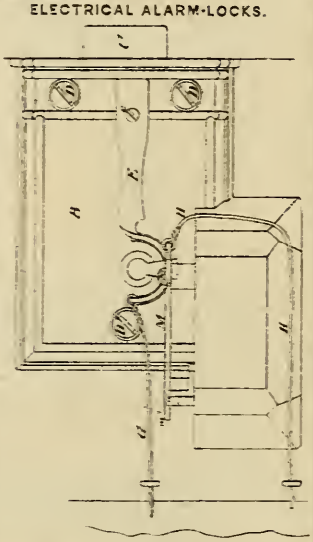
112,583. CHARLES E. GLADDING.
PLASTER-SOWERS.



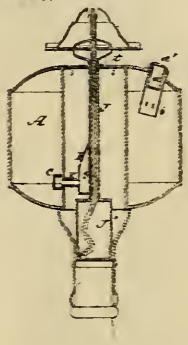
112,584. REUBEN GIPSON.
FANNING-MILLS.



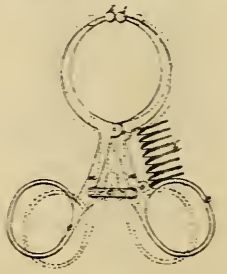
112,585. FREJUS GIRARD.
ELECTRICAL ALARM-LOCKS.



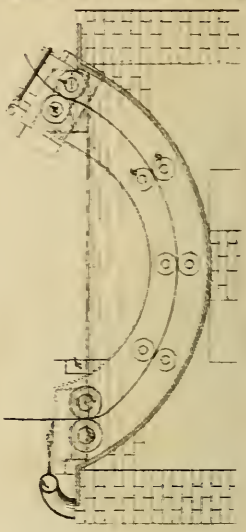
112,586. HENRY J. GOFF.
LAMPS.



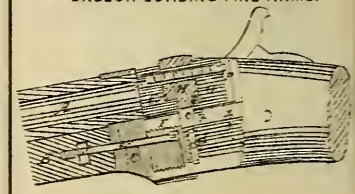
112,587. WILLIAM H. GRAY.
COWS'-TAIL HOLDERS.



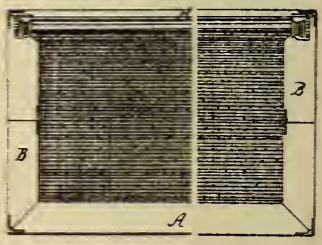
112,588. JOHN D. GREY.
COATING SHEET-IRON WITH ZINC.



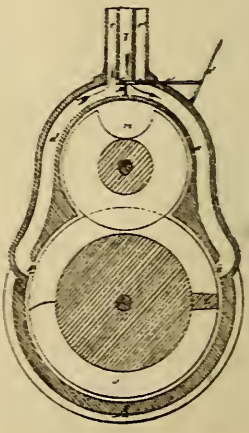
112,589. HENRY HAMMOND.
BREECH-LOADING FIRE-ARMS.



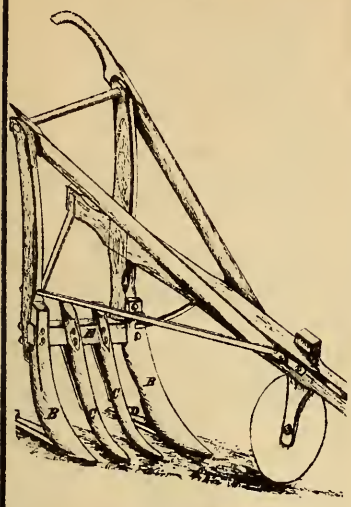
112,590. JOHN HANCOCK, Jr.
WINDOW-SCREENS.



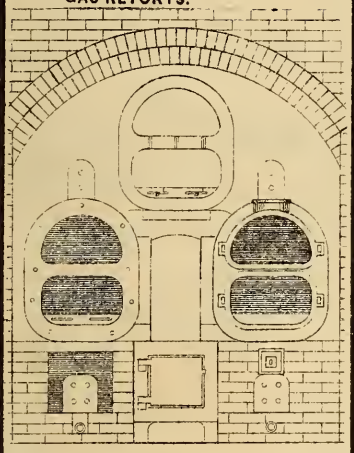
112,591. AARON S. HARLAN.
ROTARY STEAM-ENGINES.



112,592, WILLIAM D. HARRELL.
POTATO-DIGGERS.



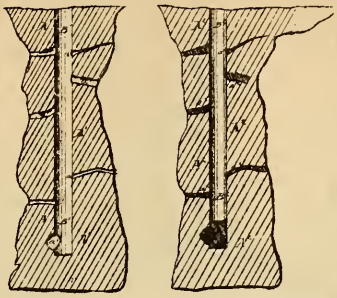
112,593, GEO. W. HARRIS.
GAS-RETORTS.



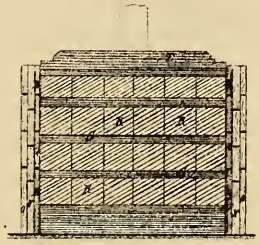
112,594, GEORGE HAYES.
SKY-LIGHTS, CONSERVATORIES, AND OTHER GLAZED STRUCTURES.

112,595, SHELBY WADAN HELM.
MEDICAL COMPOUNDS FOR TREATING BRONCHIAL AND LUNG DISEASES.

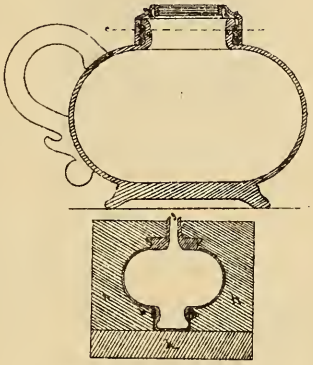
112,596, JOHN R. HILL.
OIL-WELL DRILLING.



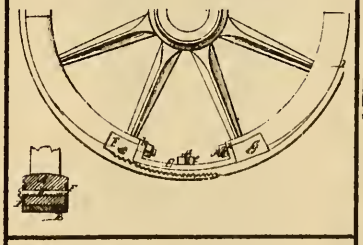
112,597, ARTEMAS HOLDREDGE.
BENJAMIN F. HARRINGTON.
HENRY H. HARRINGTON.
CHEESE-HOOPS.



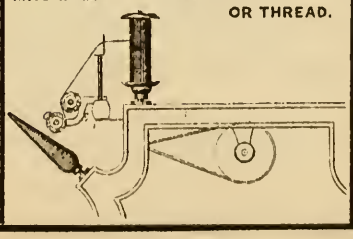
112,598, JONA. J. HOYT.
JOHN E. CRANE.
CONSTRUCTION OF LAMPS.



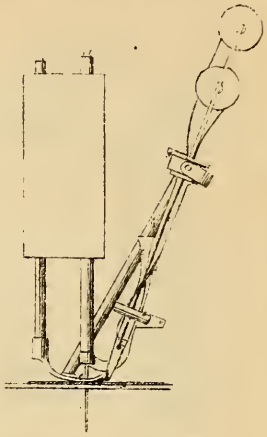
112,599, ANTHONY HUEGLER.
SECURING WHEEL-TIRES.



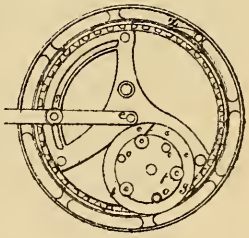
112,600, GILMAN JAQUITH.
MACHINES FOR DRESSING YARN OR THREAD.



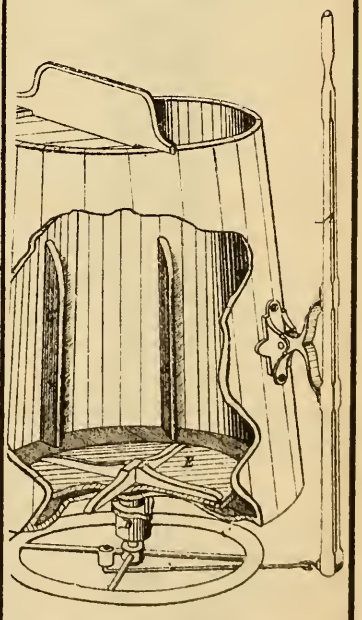
112,601, ALBERT W. JOHNSON.
EMBROIDERING ATTACHMENTS FOR SEWING-MACHINES.



112,602, WM. G. KENYON.
HAY-TEDDERS.

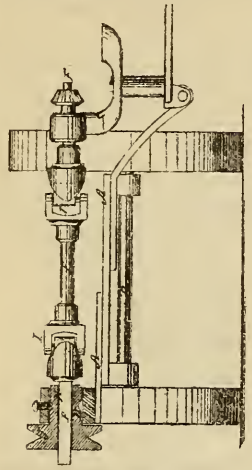


112,603, O. S. KING.
WASHING-MACHINES.



112,604, MOSES KINSEY.
SKATES.

112,605, DAVID R. KINYON.
HARVESTER-RAKES.



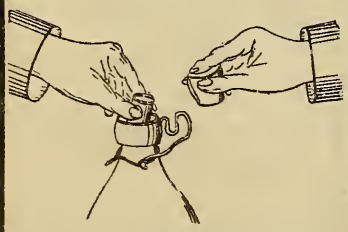
112,606, GEORGE T. LEWIS
PROCESSES OF REFINING AND WHITENING THE PRODUCT FROM SULPHURETS OF LEAD AND ZINC.

112,607, GEORGE T. LEWIS.
REFINING AND WHITENING THE PRODUCT FROM ORES OF LEAD AND ZINC.

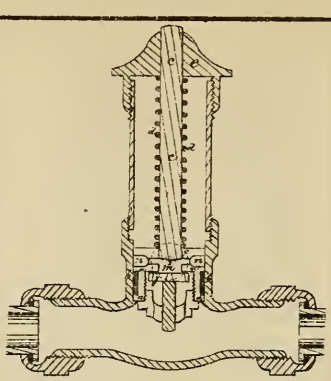
112,608, GEORGE T. LEWIS.
MANUFACTURE OF CARBONATE OF LEAD, &c.

112,609, DE MARCUS MADDEN.
BASE-BURNING STOVES.

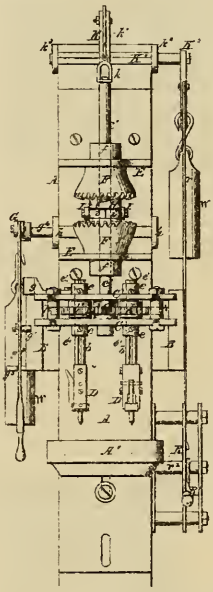
112,610, THOMAS MALONEY.
MANUFACTURE OF BOTTLED MINERAL WATER.



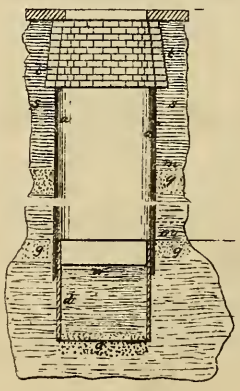
112,611, STEWART C. MARSH.
SAFETY-VALVES.



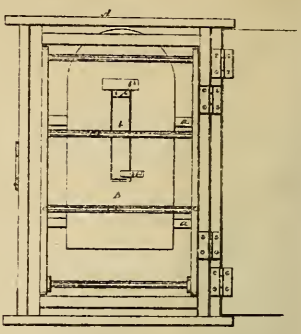
112,612, HENRY MARTIN.
MACHINES FOR CUTTING SCREW-THREADS ON BOLTS.



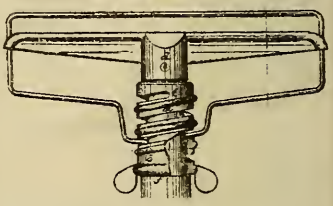
112,613 WILLIAM MASON.
MODES OF MAKING WELLS.



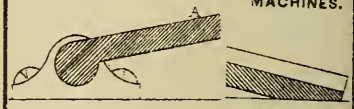
112,614, S. T. McDOUGALL.
COMBINED CLOTHES-RECEPTACLES, IRONING-BOARDS, AND DRIERS.



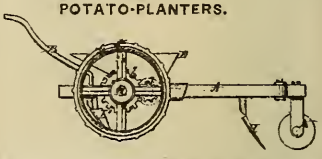
112,615, JOSEPH MESSINGER. MOP-HEADS.



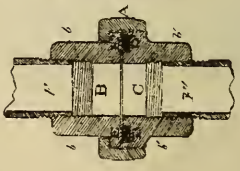
112,616, GEORGE W. MILES.
TREADLES FOR SEWING AND OTHER MACHINES.



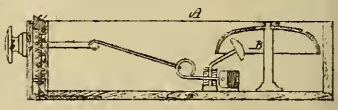
112,617, JOHN C. MILLS.
POTATO-PLANTERS.



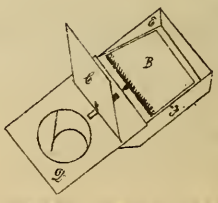
112,618, JAMES M. MOREHEAD.
PIPE-CONNECTIONS.



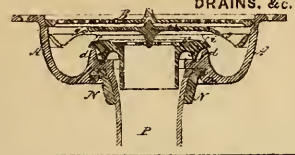
112,619, JEREMIAH MURPHY
BURGLAR-ALARM DRAWERS.



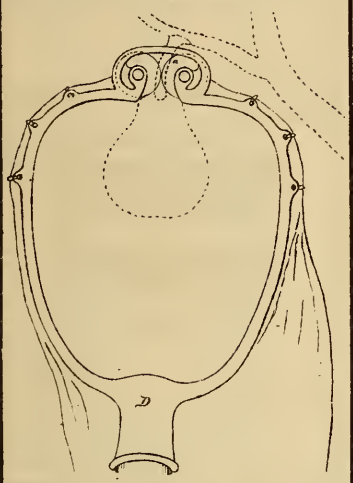
112,620, SOLOMON D. NEWBRO.
EARTH-CLOSETS.



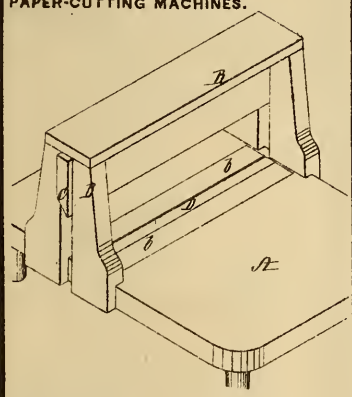
112,621. AARON B. NOTT.
MODES OF ATTACHING PIPES TO SINKS, DRAINS, &c.



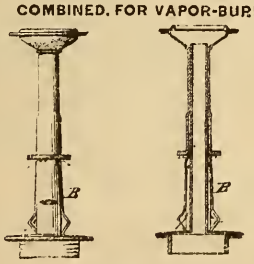
112,622, CORNELIUS OSTRANDER.
FRUIT-GATHERERS.



112,623. CHARLES PAINE.
PAPER-CUTTING MACHINES.

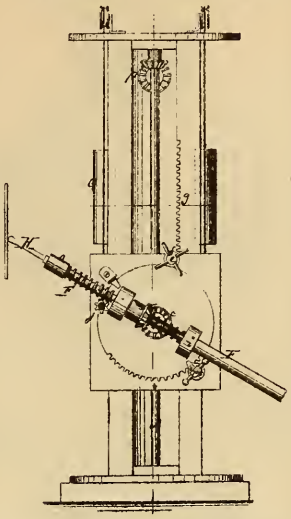


112,624. JASON J. PALMER.
FRANKLIN G. PALMER.
GLOBE-HOLDERS AND COOLERS COMBINED, FOR VAPOR-BURNERS.

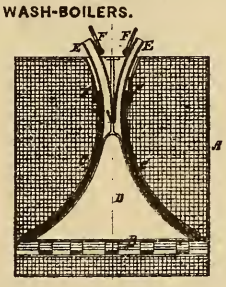


112,625, CHARLES W. PEIRCE, JR.
SKIRTS.

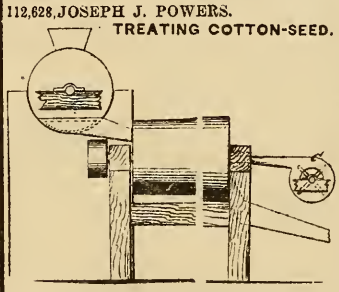
112,626, PARLEY I. PERRIN.
JOSEPH L. HEWES.
MACHINES FOR TAPPING BOILERS.



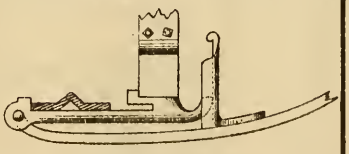
112,627. CHARLES W. POWELL.
WASH-BOILERS.



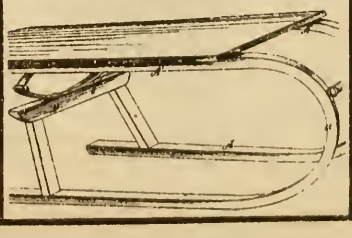
112,628, JOSEPH J. POWERS.
TREATING COTTON-SEED.



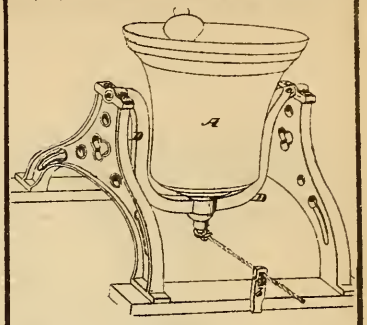
112,629, AMOS RANK.
FINGER-BEAMS FOR HARVESTERS.



112,630, AMOS RANK. SLEIGHS.

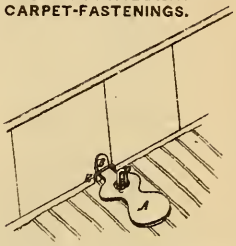


112,631, JOSHUA REGESTER. BELLS.

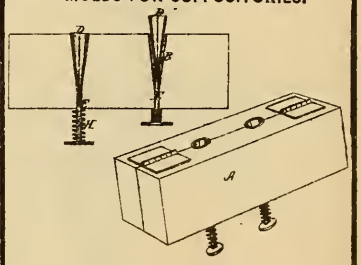


112,632, SARAH AMANDA REYBERT.
HAIR-TONICS.

112,633, JOSEPH A. ROBBINS.
CARPET-FASTENINGS.

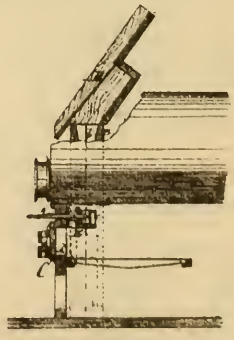


112,634, JOSEPH A. ROBBINS.
MOLDS FOR SUPPOSITORIES.

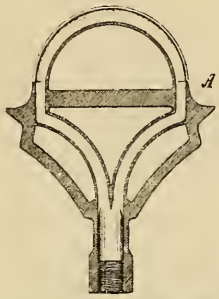


112,635, CHAS. E. ROBINSON.
SAFETY-HASPS OR LATCHES.

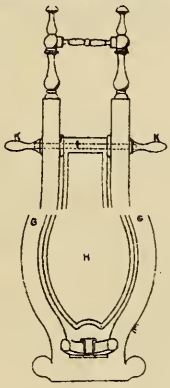
112,636, ALEXANDER RODGERS.
ESAU TARRANT.
MACHINES FOR FEEDING FUEL TO FURNACES.



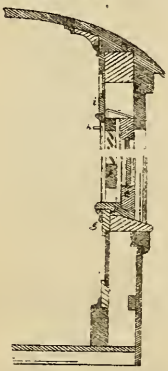
112,637, MARK ROSENWAX.
GAS-BURNERS.



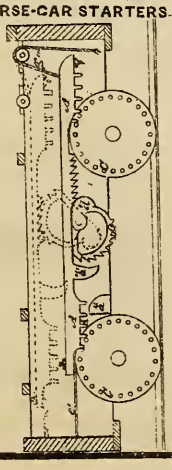
112,638, JOSEPH ROUARD. BOOT-JACKS.



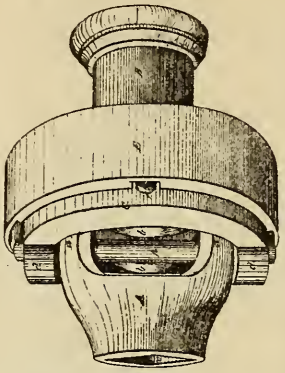
112,639, E. A. SCHOELLER.
WINDOWS FOR RAILWAY-CARS.



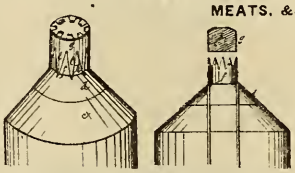
112,640, HENRY SCHREINER.
HORSE-CAR STARTERS.



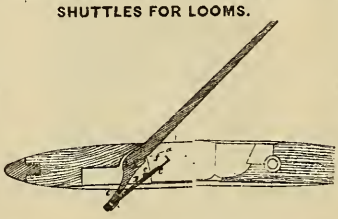
112,641. FREEDOM G. SHEPARD.
SHAFT-COUPLINGS.



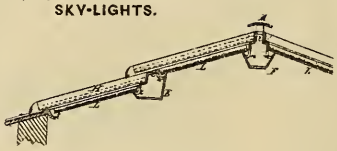
112,642. NICHS. H. SHIPLEY.
SEALING CANS AND OTHER VESSELS FOR PRESERVING FRUITS, MEATS, &c.



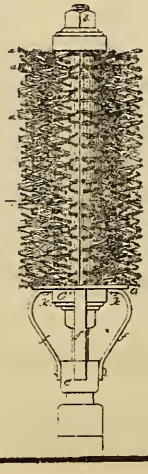
112,643. CHARLES ELBRIDGE SMITH.
SHUTTLES FOR LOOMS.



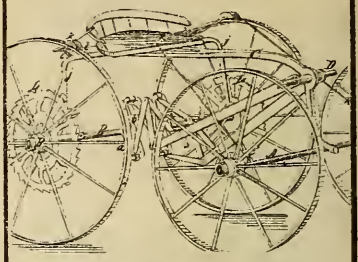
112,644, CHAS. S. SNEAD
SKY-LIGHTS.



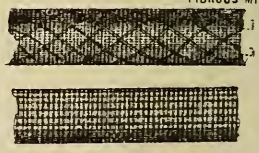
112,645, BENJAMIN M. SPENCER.
BOILER-FLUE BRUSHES.



112,646, MANASSA STAUDT.
VELOCIPEDES.



112,647. CHASE A. STEVENS.
PACKINGS FROM ASBESTUS AND OTHER FIBROUS MINERALS

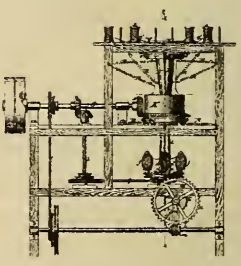


112,648. CHASE A. STEVENS.
FIBROUS MINERAL PACKINGS FOR JOURNALS, BEARINGS, &c

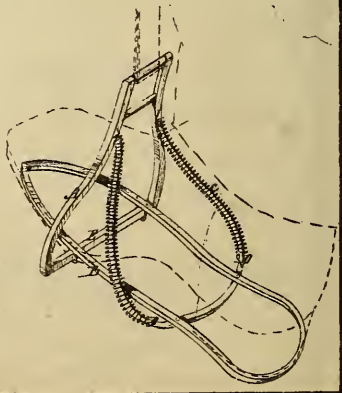
112,649. CHASE A. STEVENS.
TREATING ASBESTUS AND OTHER MINERAL FIBERS FOR USEFUL PURPOSES.

112,650. CHASE A. STEVENS.
TREATING ASBESTUS AND OTHER FIBROUS MINERALS.

112,651. CHASE A. STEVENS.
ISAAC LINDSLEY.
MACHINERY FOR FORMING PACKING FROM ASBESTUS AND OTHER FIBROUS MATERIALS.

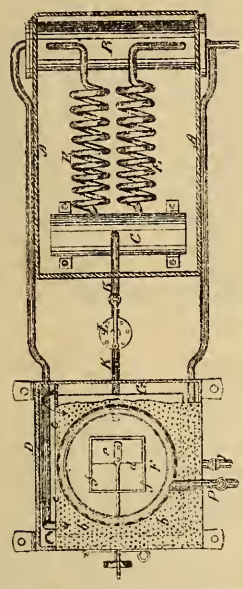


112,652, LEONARD S. TAYLOR.
STIRRUPS FOR RIDING-SADDLES.



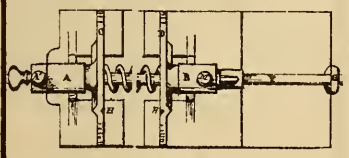
112,653. THOMAS TAYLOR.
FERTILIZERS.

112,654 A. B. TRIPLER.
APPARATUS FOR MAKING ICE AND REFRIGERATING.

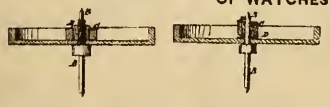


112,655. CHARLES EDWARD TROWBRIDGE
FASTENERS FOR SPINNING-RINGS.

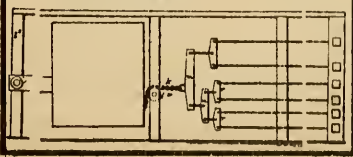
112,656. GEORGE VINCENT.
MACHINES FOR BLOCKING RIBBONS, &c.



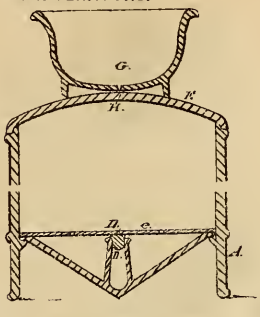
112,657. C. W. WADSWORTH.
CARL GULLBERG.
ATTACHING THE HAIR-SPRINGS OF WATCHES.



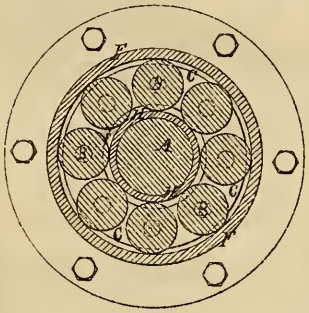
112,658. CHAS. A. WAKEFIELD.
WIRE FENCES.



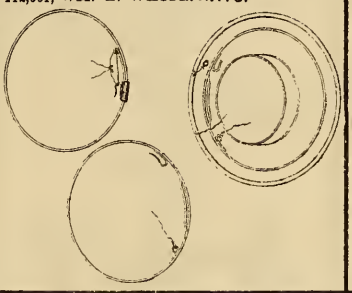
112,659. JOHN H. WELSH.
REFRIGERATORS.



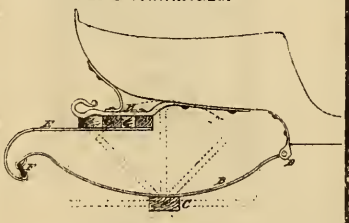
112,660. HENRY P. WESTCOTT.
ANTI-FRICTION JOURNAL-BOXES.



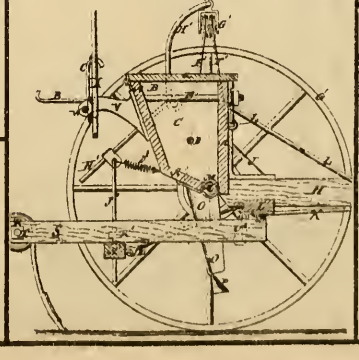
112,661. WM. H. WHITE. HATS.



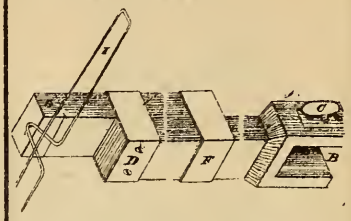
112,662. WM. B. WHITNEY
CHILD'S CARRIAGES.



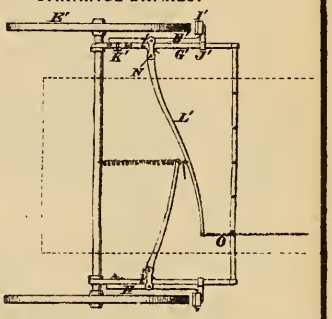
112,663. LYMAN WIGHT.
BROADCAST SEEDERS AND CULTIVATORS COMBINED.



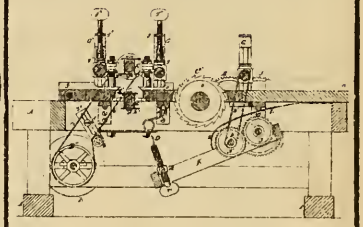
112,664. H. R. WILLIAMS.
COPY-HOLDERS.



112,665 AUGUST WNUCK.
CARRIAGE-BRAKES.

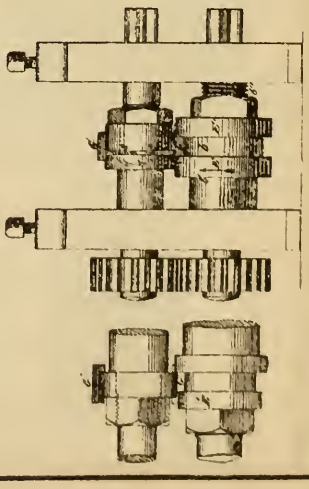


112,666. GEORGE F. WOOLSTON.
BLIND-SLAT MACHINES.

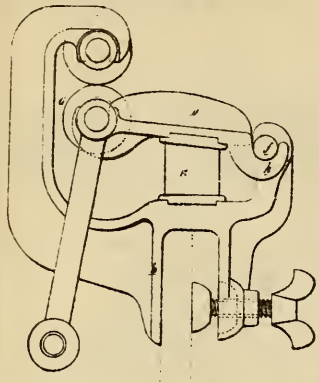


112,667. PIERCE W. YARRELL.
WATER-WHEELS.

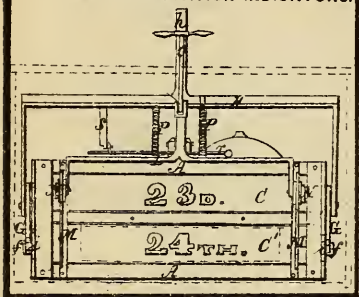
112,668. WM. ACHESON.
ROLLS FOR FORMING HORSESHOE-BLANKS.



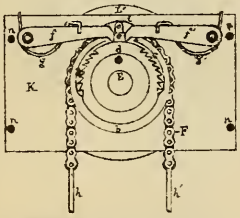
112,669. AUGUST ALBRECHT.
CLOTHES-WRINGERS.



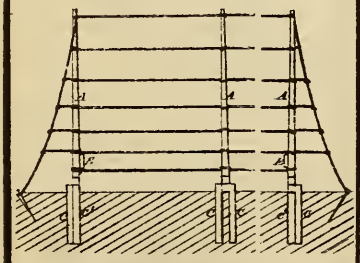
112,670, G. W. ALEXANDER.
RAILROAD-STATION INDICATORS.



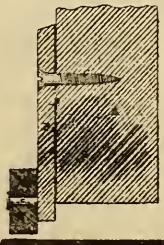
112,671, J. B. ALEXANDER.
RAILROAD-STATION INDICATORS.



112,672, WILLIAM ALTICK.
F. P. GRIMES.
FENCES.

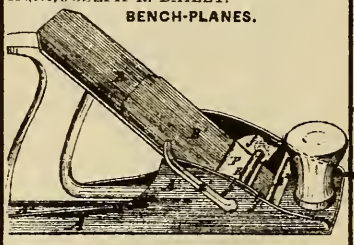


112,673, CHAS. R. ANDERSON.
DOOR-CHECKS.

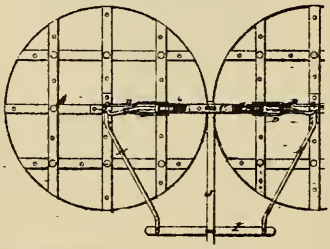


112,674. LAUREN B. ARNOLD.
VENTILATING MILK-CANS.

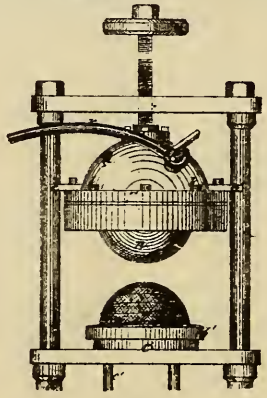
112,675, JOSEPH R. BAILEY.
BENCH-PLANES.



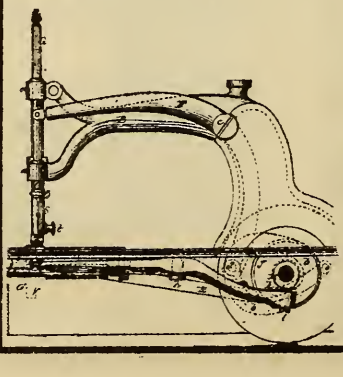
112,676, JOHN W. BARTON.
THOMAS HOLMES.
ROTARY HARROWS.



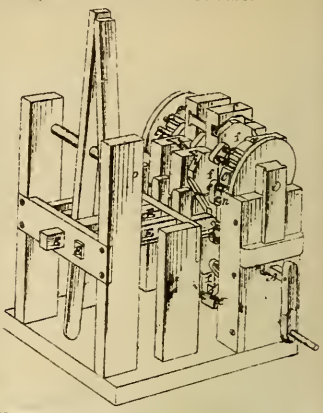
112,677, SAMUEL BEATTY.
HAT-PRESSES.



112,678. JOSEPH BENNOR.
SEWING-MACHINES.

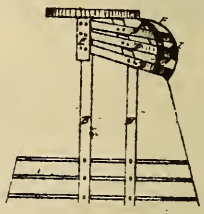


112,679, WM. H. BOOZER. LOOMS.

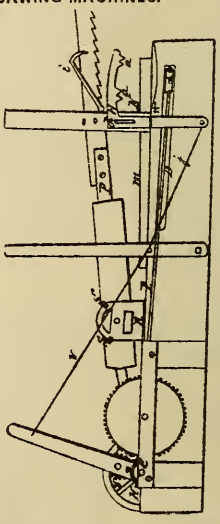


112,680, MYRON T. BOULT.
CARVING-TOOLS.

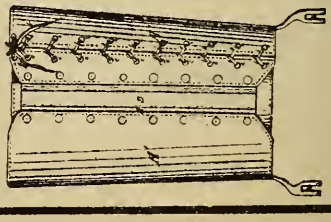
112,681 M. P. BRAY. HOOP-SKIRTS.



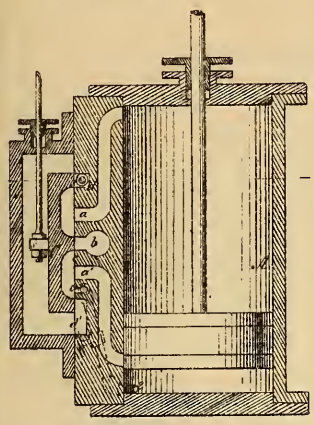
112,682, GEORGE W BRAYMER.
SAWING-MACHINES.



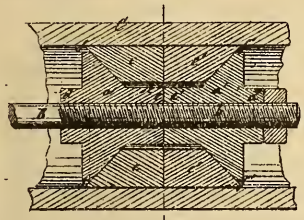
112,683 S. F. BURD.
J. F. DENNISTON.
CLASPS FOR ARTIFICIAL LIMBS.



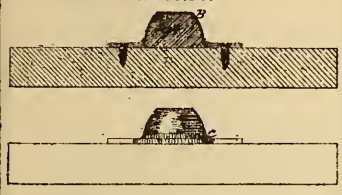
112,684 A. S. CAMERON.
STEAM-VALVES.



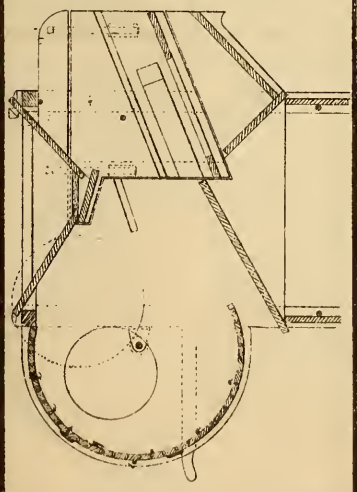
112,685, A. S. CAMERON.
PISTON-PACKINGS.



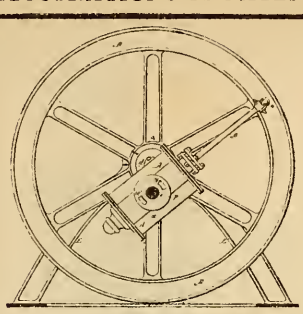
112,686, DAVID H. CLARK.
HENRY WINSON.
FURNITURE-PADS.



112,687, G. E. CLARKE.
FANNING-MILLS.



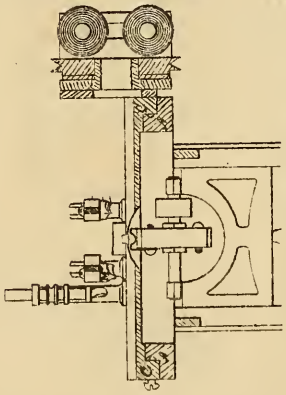
112,688, ROBERT LIVINGSTON COHEN.
ROTATING CYLINDER-ENGINES.



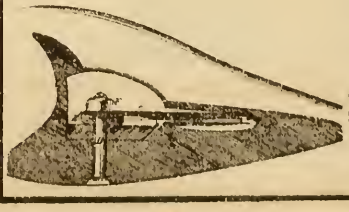
112,689 GEORGE W. COOK.
FRANCIS M. DUNCAN.
CUTTING APPARATUS FOR HARVESTER

112,690. EDWIN G. CRANDAL. GRAPPLES.

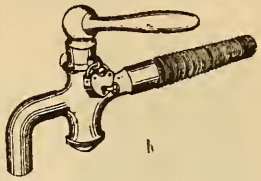
112,691, JAMES H. CULVER.
MOLDING-MACHINES.



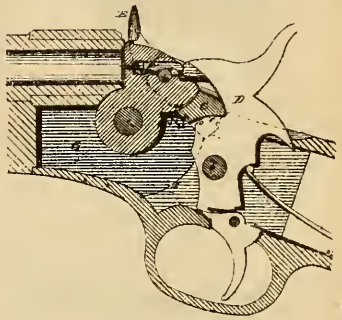
112,692, HENRY CUTLER.
HARVESTER-CUTTERS.



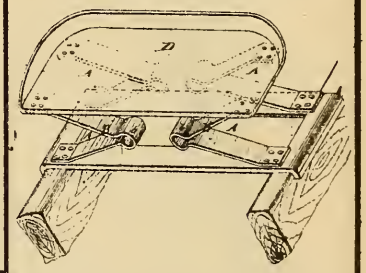
112,693, ELLWOOD DAVIS.
JACOB M. STILES.
LOCKING STOP-COCKS.



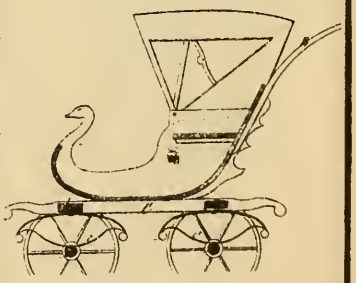
112,694, WILLIAM C. DODGE.
PHILIP T. DODGE.
BREECH-LOADING FIRE-ARMS.



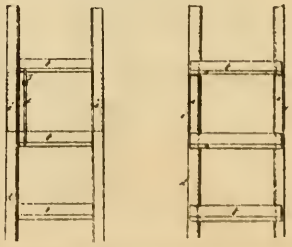
112,695, W. P. ELAM.
SPRING-SEATS FOR WAGONS.



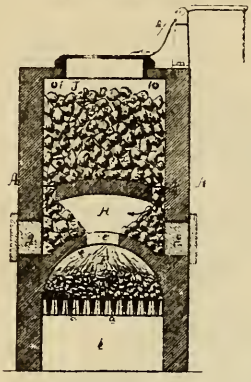
112,696, ROSCOE G. ELDER.
CHILDREN'S CARRIAGES.



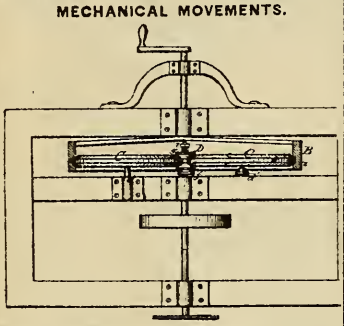
112,697, GEORGE HENRY ELLIS
LADDERS.



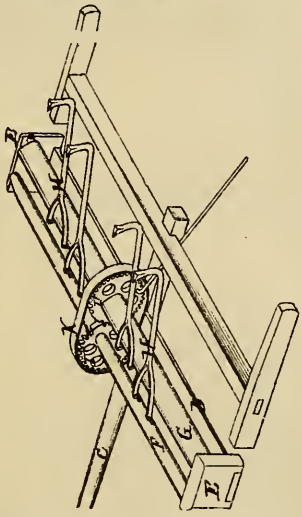
112,698, WILLIAM ENNIS.
FURNACES FOR TREATING ORES, &c.



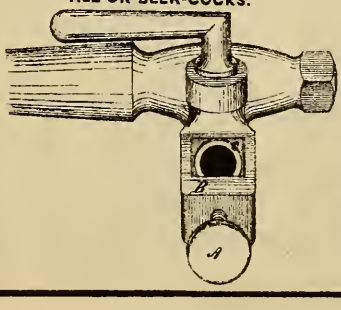
112,699, WM. A. FENN.
MECHANICAL MOVEMENTS.



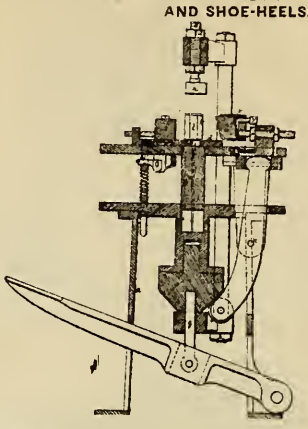
112,700 SILAS N. GALLUP.
GRAIN-DRILLS.



112,701, HENRY GETTY.
ALE OR BEER-COCKS.

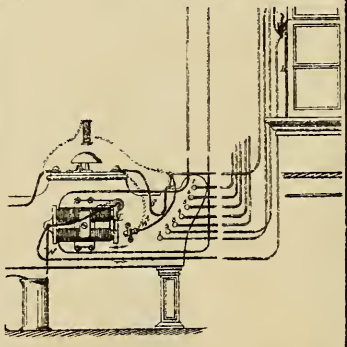


112,702 CHARLES W. GLIDDEN
MACHINES FOR MAKING BOOT AND SHOE-HEELS.

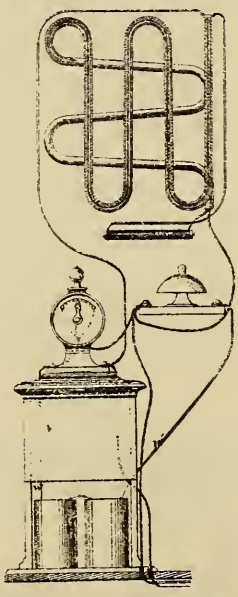


112,703. E. A. GOODES.
STAINING GLASS.

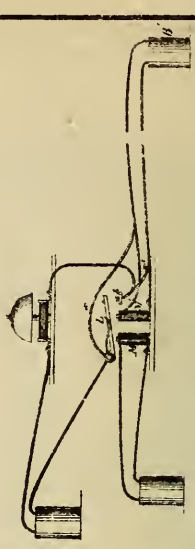
112,704. W. B. GUERNSEY.
ELECTRO-MAGNETIC BURGLAR-ALARMS.



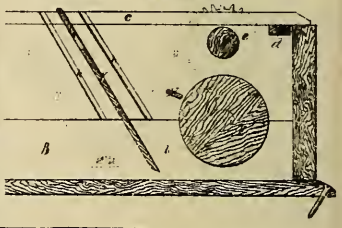
112,705. W. B. GUERNSEY.
ELECTRO-MAGNETIC BURGLAR-ALARM



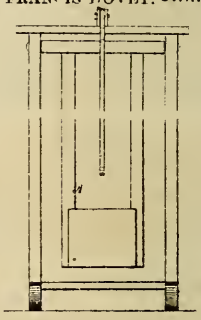
112,706, W. B. GUERNSEY.
ELECTRO-MAGNETIC BURGLAR-ALARMS



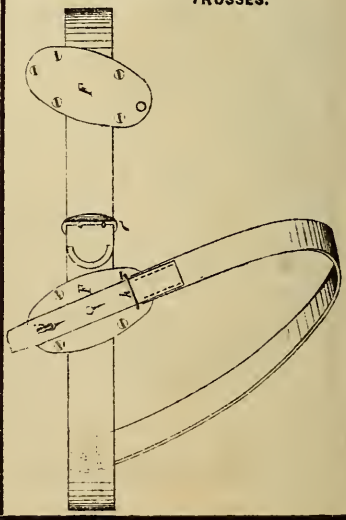
112,707, HERBERT HENRY HAWES.
DOUGH-KNEADERS.



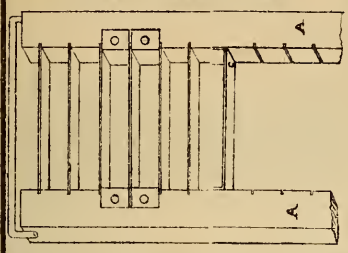
112,708, FRANCIS HOVEY. SWINGS.



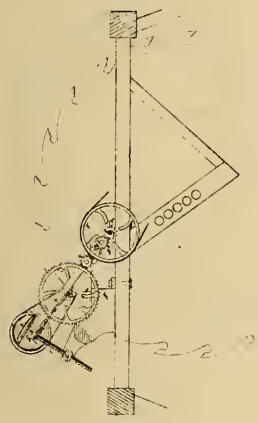
112,709, HENRY HOWE.
TRUSSES.



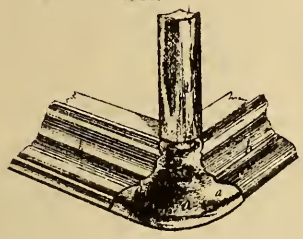
112,710, HENRY S. HOWE.
CONFECTIONERS' MOLDS.



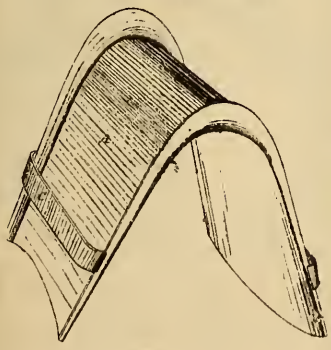
112,711, DAVID HUFFMAN.
SAW-GUMMERS.



112,712, JOHN A. HUGHES.
SHOW-CASES.

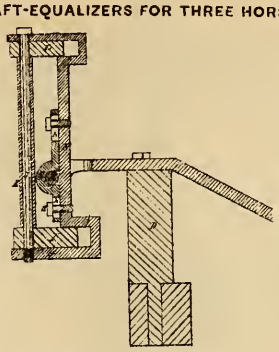


112,713 LEMUEL L. HULL.
PADS FOR HORSE-COLLARS.

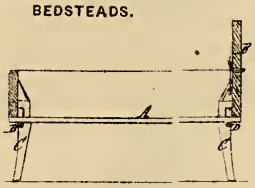


112,714. JOHN IVORY.
FIRE-ESCAPES.

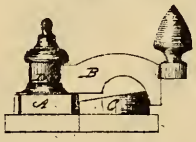
112,715. HENRY F. JERAULD.
DRAFT-EQUALIZERS FOR THREE HORSES.



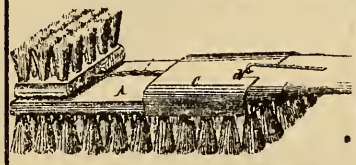
112,716. GEORGE A. JEREMIAH.
BEDSTEADS.



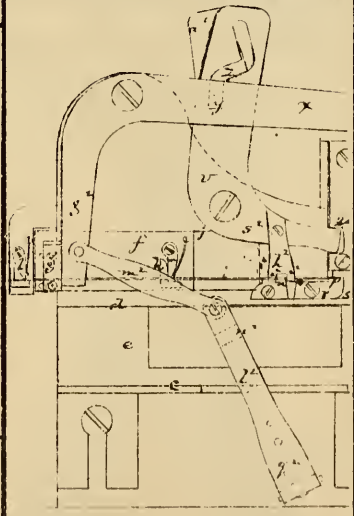
112,717. ALBERT D. JUDD.
WINDOW-BUTTONS.



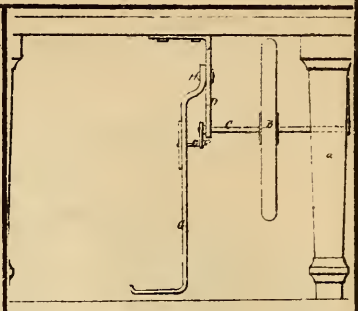
112,718, DAVID L. KEELER. BRUSHES.



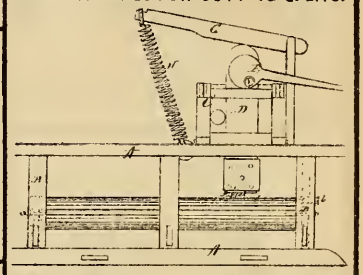
112,719. JEREMIAH KEITH.
MACHINES FOR MAKING AND SETTING BLIND-STAPLES.



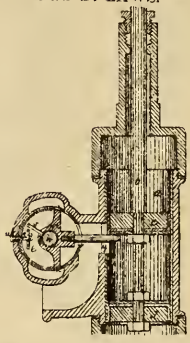
112,720, EBEN W. KEYES.
TREADLE-MOTIONS.



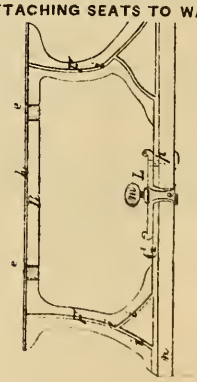
112,721, EBENEZER KNIGHT.
MACHINES FOR CUTTING SPLITS.



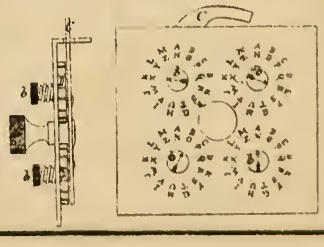
112,722, ALBERT D. LAWS. METERS.



112,723, JOSEPH L. LINVILLE.
WILLIAM SHIMANOUR.
ATTACHING SEATS TO WAGONS.

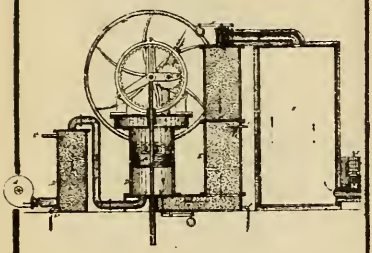


112,724. SAMUEL LOYD.
PERMUTATION-LOCKS.

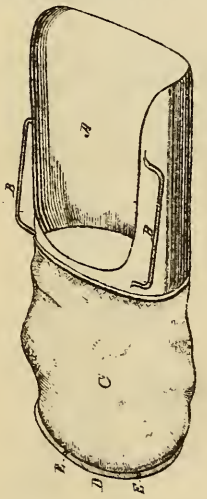


112,725. ORAZIO LUGO.
MANUFACTURE AND TREATMENT OF ALCOHOLIC SPIRITS.

112,726. ORAZIO LUGO.
JAMES B. McPHERSON.
COOLING AIR AND IN THE MANUFACTURE OF ICE.



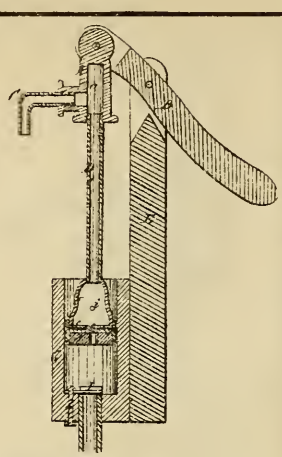
112,727. WILLIAM F. LUM.
COMBINED BAG-HOLDERS AND FILLERS.



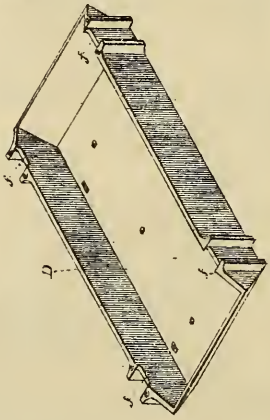
112,728. JOHN J. LUNDY.
COMPOUNDS FOR LUBRICATING WOOL.

112,729 J. M. MASON.
DRESS-SWORDS.

112,730. B. F. McKEEHAN.
PUMPS.

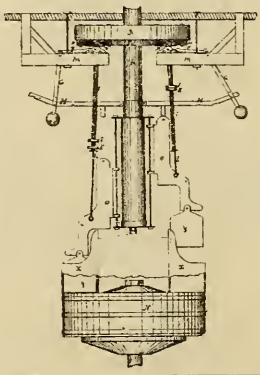


112,731. LAURENCE MYERS.
HOSE-TUNNELS FOR CITY RAILWAYS.

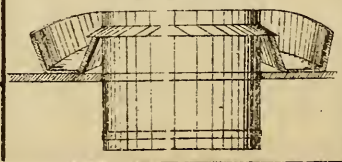


112,732. LEMUEL PAGIN.
COMPOUNDS FOR DESTROYING POTATO-BUGS.

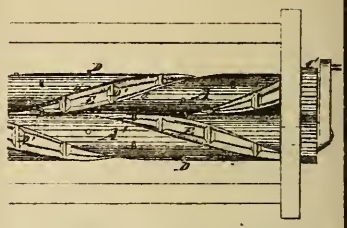
112,733. SANDFORD A. PERKINS.
MACHINES FOR GRINDING WOOD-PULP.



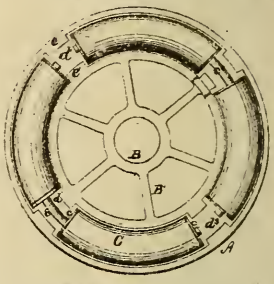
112,734. SANDFORD A. PERKINS.
WOOD-PULP MACHINES.



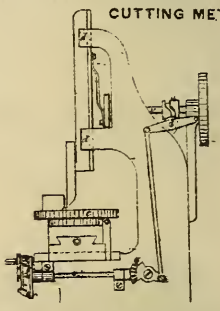
112,735. PETER PHILIP.
ROLLS FOR HUSKING CORN.



112,736. JNO. L. POST.
DEVICES FOR PREVENTING BACK-LASH IN MACHINERY.

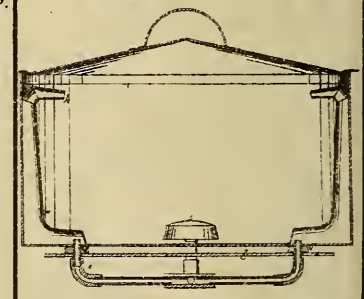


112,737. SALMON W. PUTNAM, JR.
MACHINES FOR SLOTTING AND CUTTING METAL.



112,738. JNO. T. RANDALL.
POLISHING COFFEE.

112,739. HENRY R. ROBBINS.
WASH-BOILERS.



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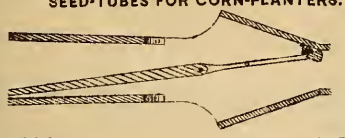
CASTERS FOR SEWING-MACHINES.

112,741. LEVI SCOFIELD.
SEED-TUBES FOR CORN-PLANTERS.



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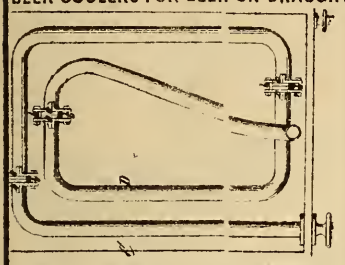
BEER-COOLERS FOR BEER ON DRAUGHT.



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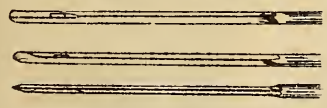
112,744, JOHN J. SIBLEY.
SEWING-MACHINE NEEDLES.



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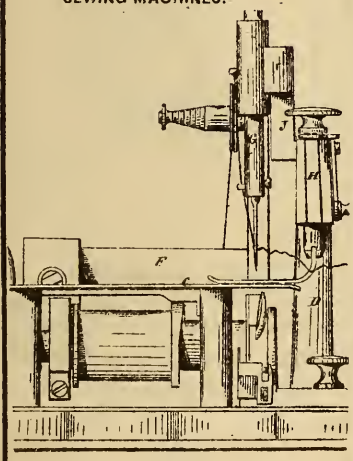

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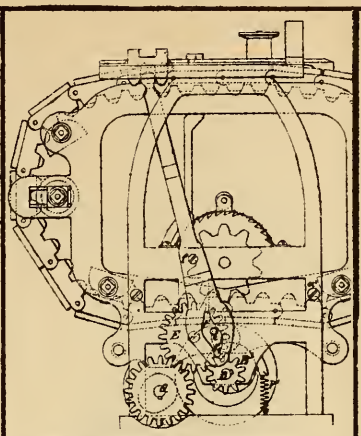
SUSPENDERS.

112,747, G. STACKPOLE.
SEWING-MACHINES.



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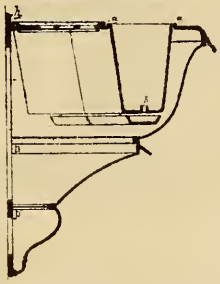

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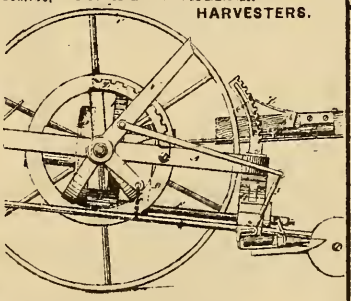
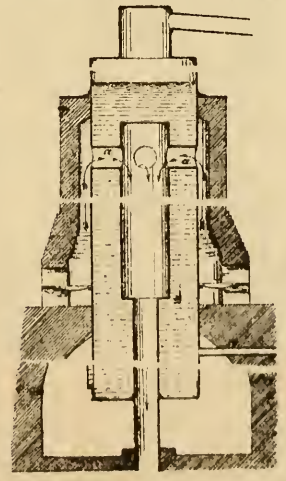
HAIR-RESTORATIVES.

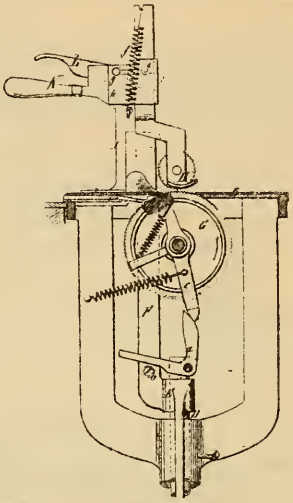
112,750, AUSBERT H. WAGNER.
HARVESTERS.



112,751, W. G. WARDEN.
APPARATUS FOR DISTILLING
PETROLEUM AND OTHER LIQUIDS.

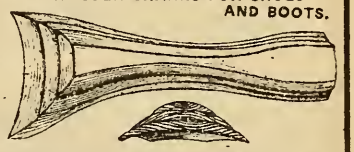


112,752. ALBIN WARTH.
MACHINES FOR CUTTING TEXTILE AND
OTHER MATERIALS.

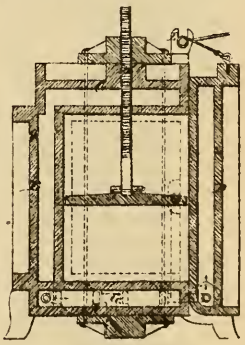


112,753. ALBIN WARTH
FASTENINGS FOR TEXTILE FABRICS.

112,754, JEREMIAH MEARS WATSON
WOODEN SHANKS FOR SHOES
AND BOOTS.



112,755. HENRY W. WEICKER.
APPARATUS FOR VULCANIZING RUBBER



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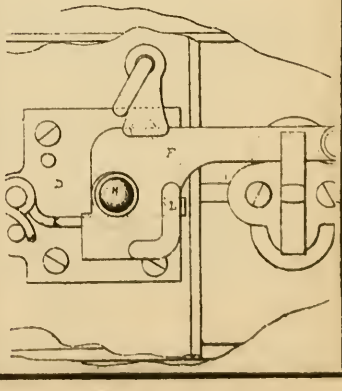
SHUTTER-FASTENERS.



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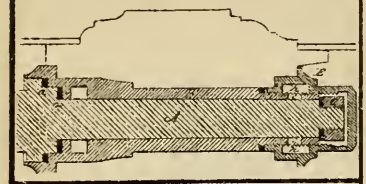
CARRIAGE-AXLES.



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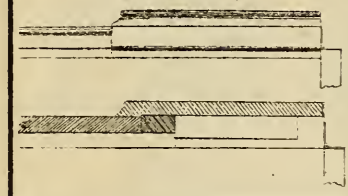
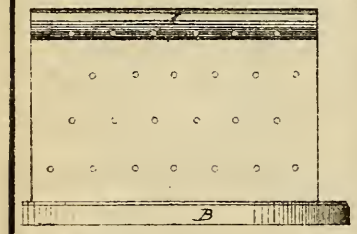
LANDAU CARRIAGES.

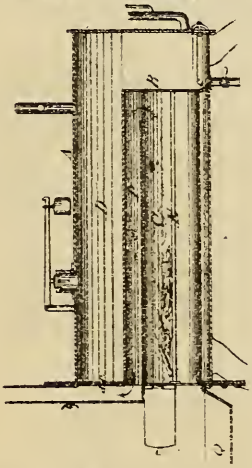


112,759. HENRY K. WHITE. LATHE-DOGS.

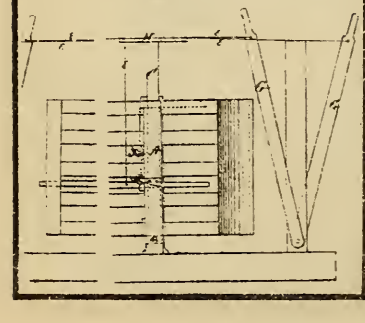
112,760 WOLCOTT B. WHITE. WASH-BOILER



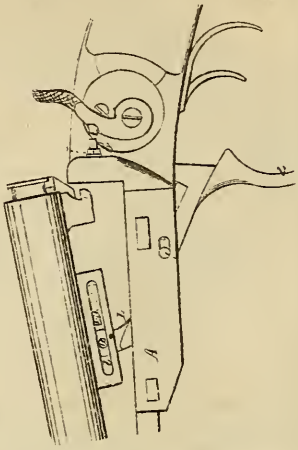
112,761. JAS. E. WOODRUFF.
PORTABLE STEAM-GENERATORS.



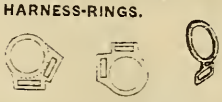
112,762. CLAIBORNE WRIGHT. GATES.



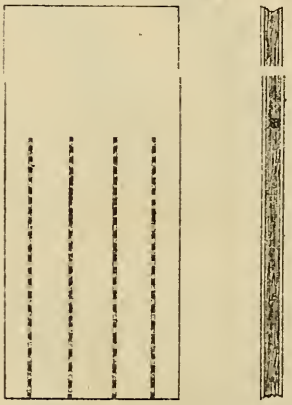
112,763. WILLIAM C. DODGE.
BREECH-LOADING FIRE-ARMS.



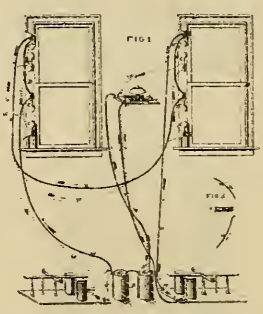
4,295 HORACE N. EAMES.
HARNESS-RINGS.



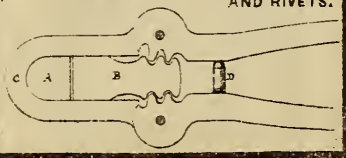
4,296. JOEL F. FALES. CARPET-LININGS.



4,297. W. B. GUERNSEY.
ELECTRO-MAGNETIC BURGLAR-ALARMS

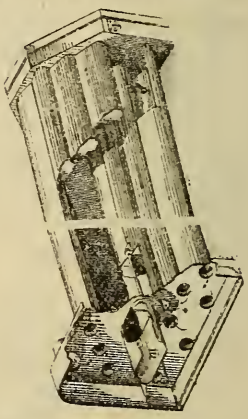


4,299. JESSE JOHNSON.
DEVICES FOR CUTTING BOLTS AND RIVETS.

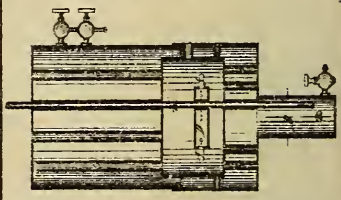


4,300. SAMUEL G. LEVIS.
MAKING THICK PAPER.

4,301. ABRAHAM L. PENNOCK
STEAM-GENERATORS.

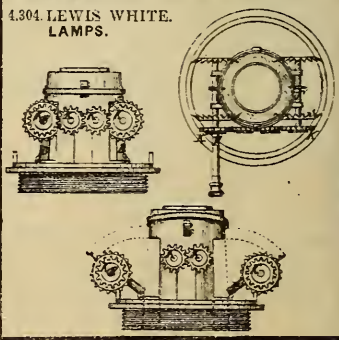


4,302. PATRICK QUINN.
STEAM-BOILERS.



4,303. B. M. SMITH.
BUTTON-HOLES

4,304. LEWIS WHITE.
LAMPS.



ILLUSTRATIONS OF PATENTS

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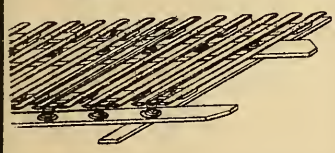
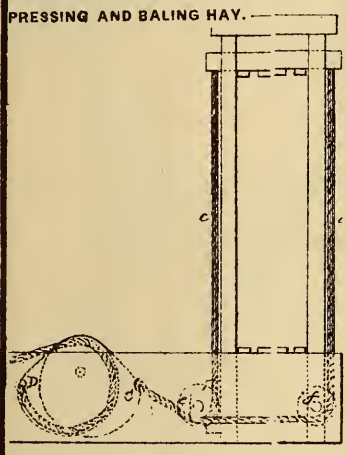
MARCH 21, 1871.

112,764. NATHAN B. ABBOTT,
COMPOSITIONS FOR PAVEMENTS.

112,765, JOHN H. ALLYN.
BED-BOTTOMS.



112,766, GEORGE H. AYLWORTH.
PRESSING AND BALING HAY.



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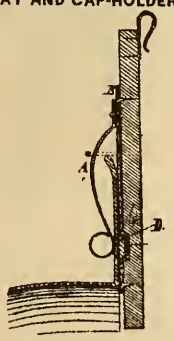
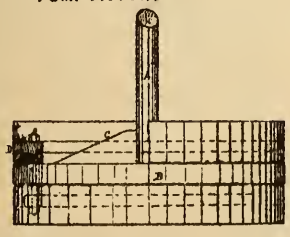


112,768 DANIEL W. BELL.
PUMP-PISTONS.



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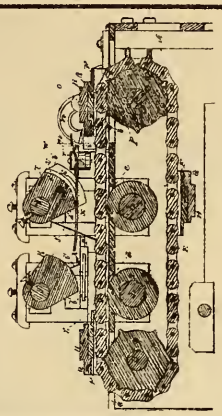

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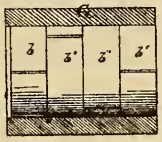
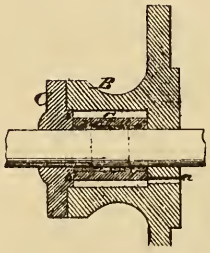
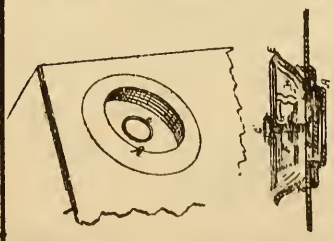




112,771, J. A. BOSTWICK
TAPS AND NOZZLES FOR OIL-CANS.



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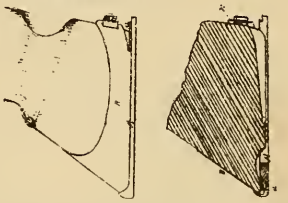
112,773. JOSEPH BRACKETT.
HORSE-SHOES.



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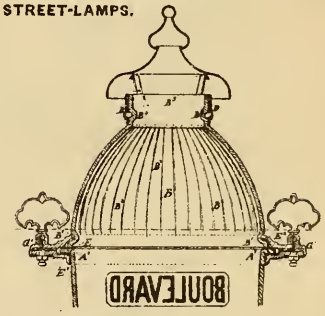

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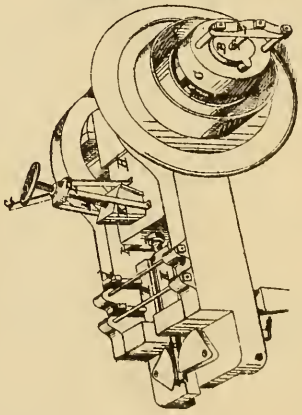
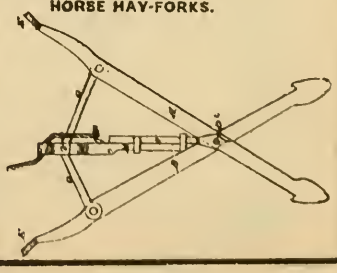
JOSEPH A. BRISCOE.
MACHINES FOR UPSETTING BOLTS.



112,776, JOHN E. BROOKS.
GREEN GLAZE FOR FLOWER-POTS.

112,777, BENJAMIN F. BROWN.
HORSE HAY-FORKS.



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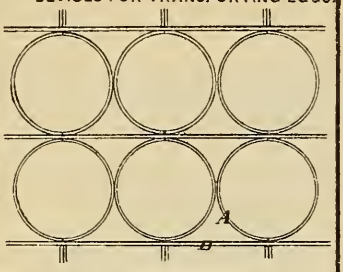

112,779. EDWD. A. CALAHAN.
GEO. B. FIELD.
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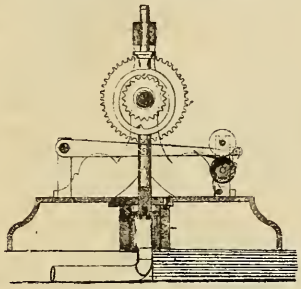

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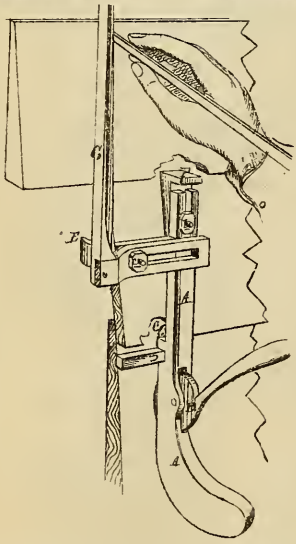
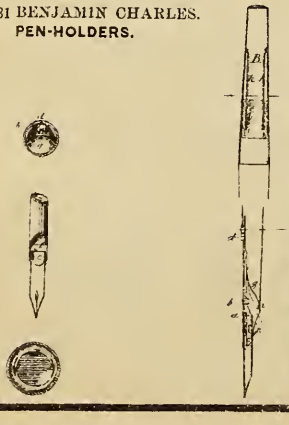
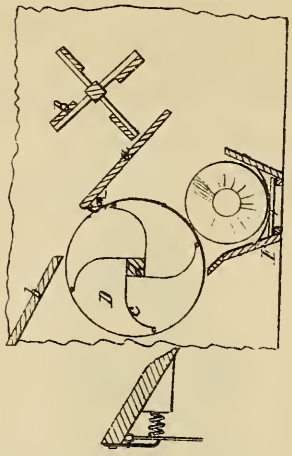
COMBINED GAUGES AND TRY-SQUARES.



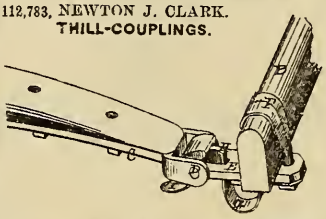
112,781 BENJAMIN CHARLES.
PEN-HOLDERS.



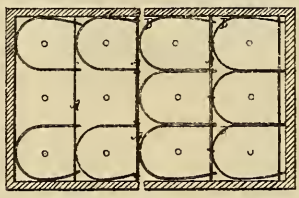
112,782, FRANCIS G. CHESMAN.
THRASHING-MACHINES.



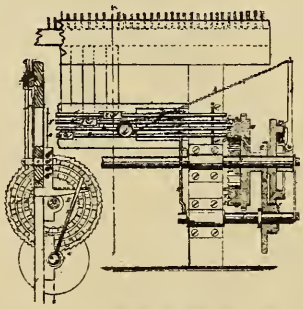
112,783, NEWTON J. CLARK.
THILL-COUPLINGS.



112,784. W. J. CLARK.
EGG AND FRUIT-CARRIERS.

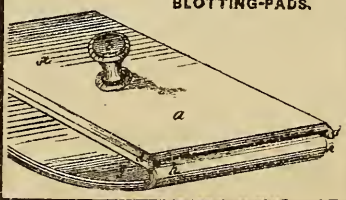


112,785. JOSEPH CLOUGH.
JOSEPH CROMPTON.
LAPPET-LOOMS.

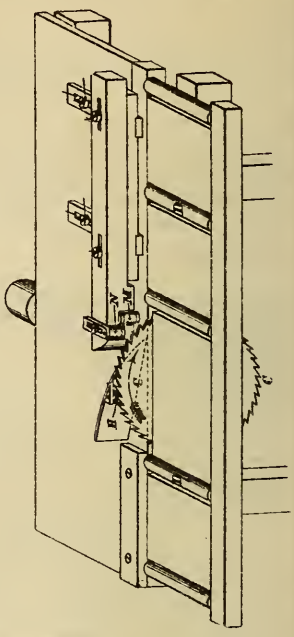


112,786. NICHOLAS CLUTE.
COATING GAS AND WATER-PIPES.

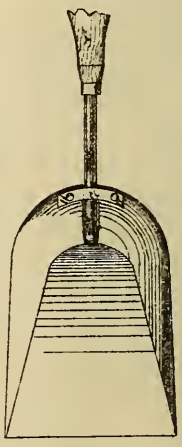
112,787, ALFRED Q. COLLINS.
BLOTTING-PADS.



112,788, JONATHAN CREAGER.
SAWING-MACHINE TABLES.



112,789. ISAAC W. DENNING.
FIRE-SHOVELS.



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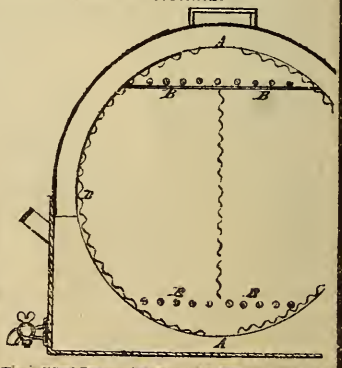
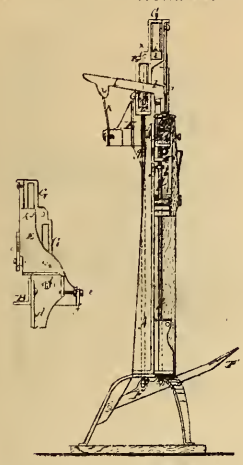
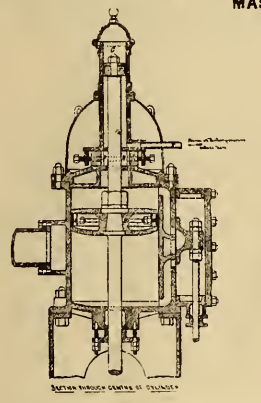
WASHING-MACHINES



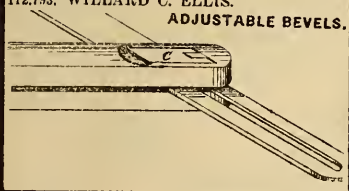
112,791. ELIJAH F. DUNAWAY.
BLIND-WIRING MACHINES.



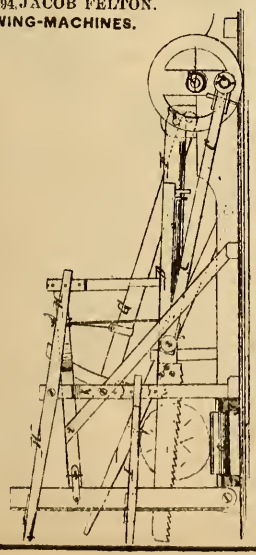
112,792, WILLIAM F. DURFEE.
BALANCING VERTICAL-RECIPROCATING MASSES.



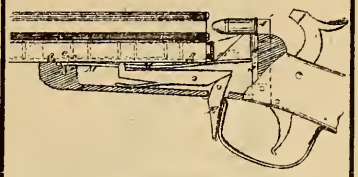
112,793. WILLARD C. ELLIS.
ADJUSTABLE BEVELS.



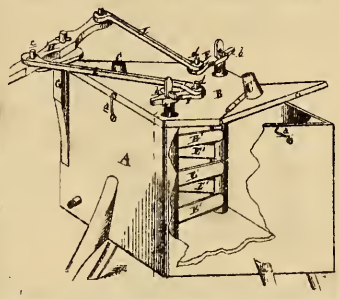
112,794. JACOB FELTON.
SAWING-MACHINES.



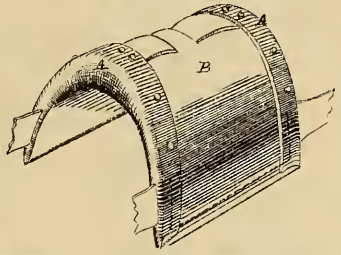
112,795 HARBERT K. FORBIS.
MAGAZINE FIRE-ARMS.



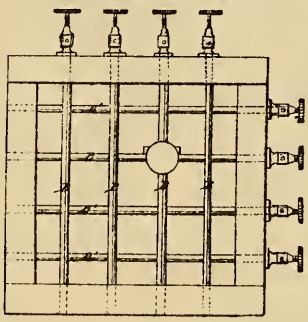
112,796, DAVID FRANKFODER. CHURNS.



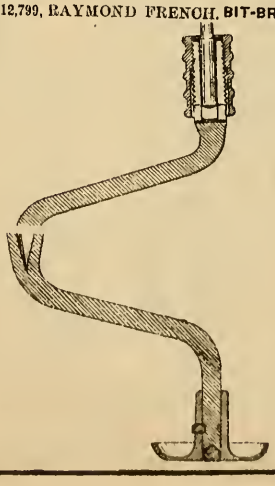
112,797. JOHN FRASER.
HORSE-COLLAR PADS.



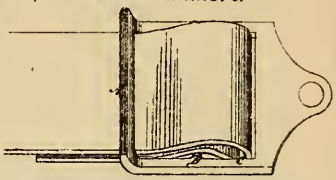
112,798. A. H. FREEMAN.
TELEGRAPH-SWITCHES.



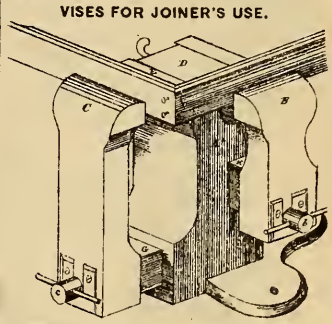
112,799, RAYMOND FRENCH. BIT-BRACES.



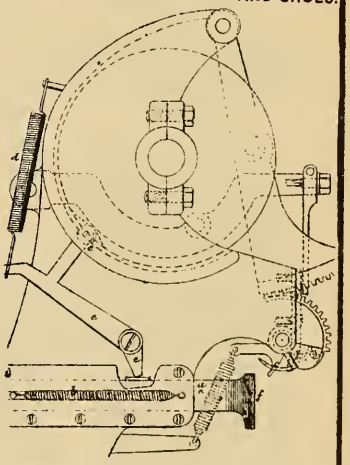
112,800. JOSIAH B. GATHRIGHT.
LOOPS FOR STIRRUPS.



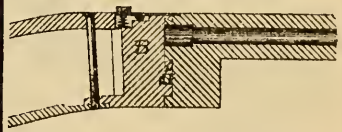
112,801, JONATHAN GOOD.
VISES FOR JOINER'S USE.



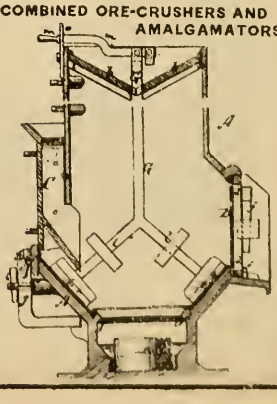
112,802. CHAS. GOODYEAR, Jr.
MACHINES FOR SEWING BOOTS AND SHOES.



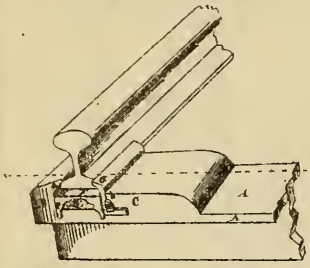
112,803, GARDNER B. GRAY.
JOSEPH H. ROMANS.
BREECH-LOADING FIRE-ARMS.



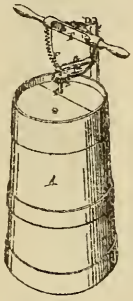
112,804, LYMAN GRISWOLD.
COMBINED ORE-CRUSHERS AND AMALGAMATORS



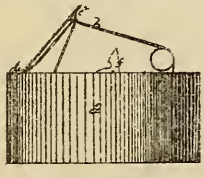
112,805. SAMUEL M. GUEST.
RAILWAY-RAIL CHAIRS.



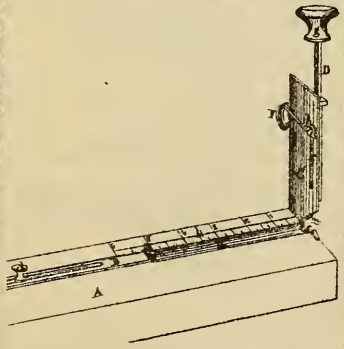
112,806. HEMAN S. GURNEY. HORACE MERRILL. CHURNS.



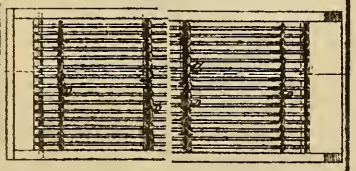
112,807. GEORGE L. HART.
MOUSE AND ANIMAL-TRAPS.



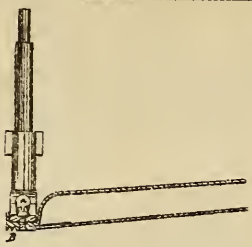
112,808. MATHIAS JOSEPH HINDEN
APPARATUS FOR CUTTING THE ENDS OF CIGARS.



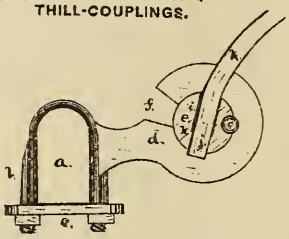
112,809. SAMUEL HOLDSWORTH.
SAND-SCREENS.



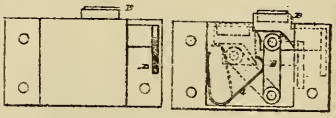
112,810. HENRY HORN.
CORD-GUIDES FOR SEWING-MACHINES.



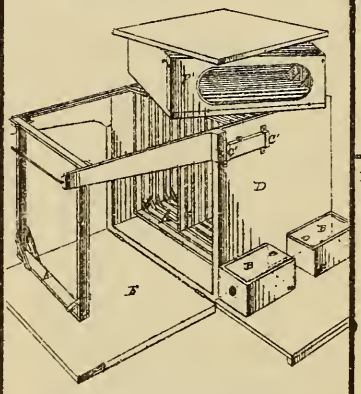
112,811. BENJAMIN F. HORTON.
THILL-COUPLINGS.



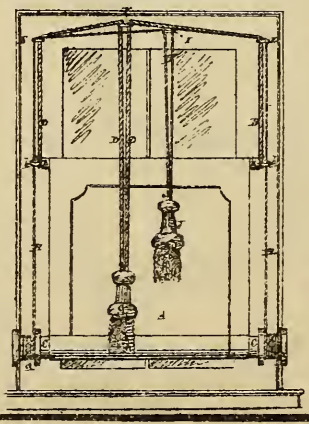
112,812. PHILO B. HOVEY.
SASH-HOLDERS.



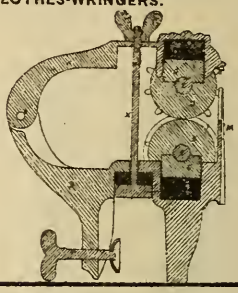
12,813. WASHINGTON J. KELLY.
BEE-HIVES.



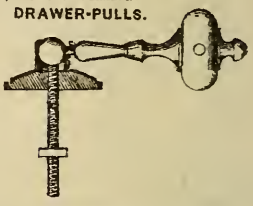
112,814. WILLIAM C. KENNEDY.
CURTAIN-FIXTURES.



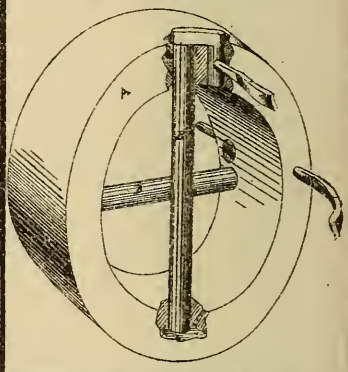
112,815. ALEX. KING.
CLOTHES-WRINGERS.



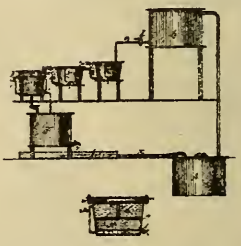
112,816. JOSEPH KINTZ.
DRAWER-PULLS.



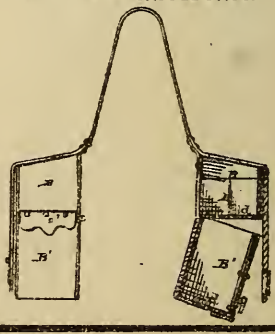
112,817. DARIUS KNICKERBOCKER. SAMUEL KNICKERBOCKER.
SHAFT-COUPLINGS.



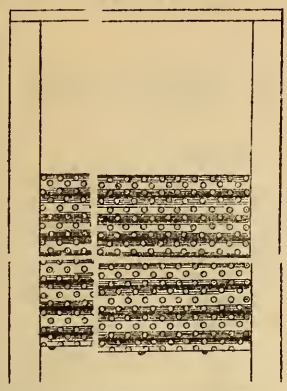
112,818. ARCHIBALD K. LEE.
RECTIFYING HIGH-WINES.



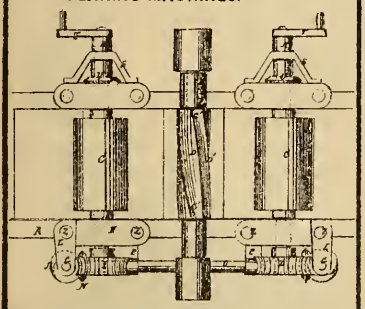
112,819. ANDREW M. LESLIE.
PHYSICIANS' SADDLE-BAGS.



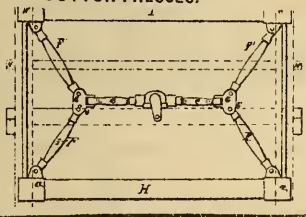
112,820, CHARLES LETTERMAN.
WASH-BOARDS.



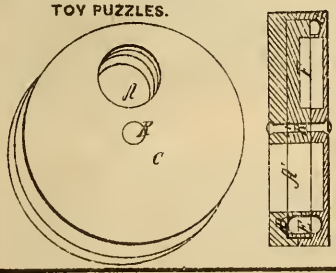
112,821, CHAS. LEVEY.
PLANING-MACHINES.



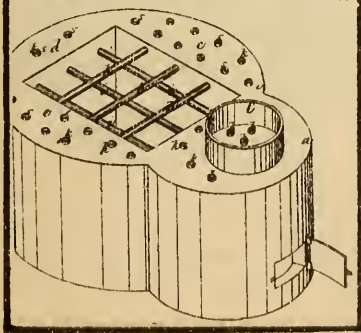
112,822, ELI W. LONG.
ISAAC N. PATTEN.
COTTON-PRESSES.



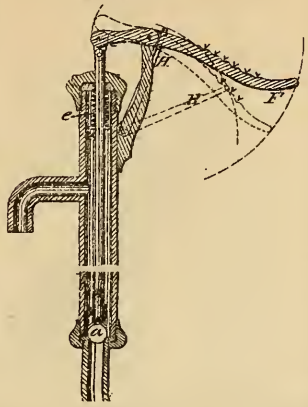
112,823, SAMUEL LOYD.
TOY PUZZLES.



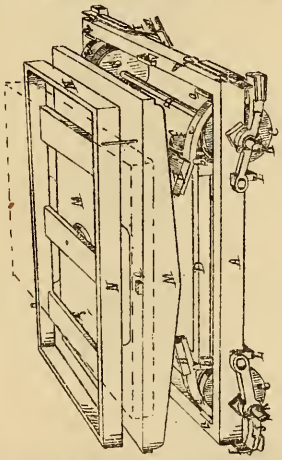
112,824, JAS. A. MAYNARD.
BOILERS FOR HEATING PURPOSES.



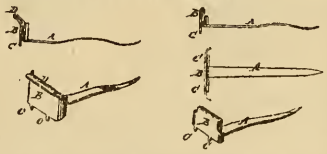
112,825, JOHN McCANN.
HYDRANTS.



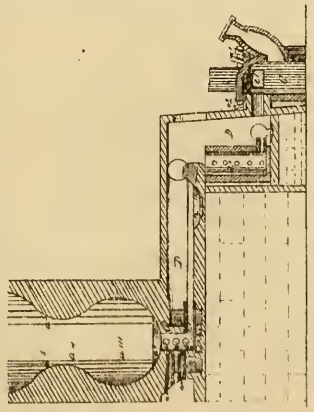
112,826, PATRICK HENRY McWILLIAMS.
RAILWAY SHIFTING-TRUCKS.



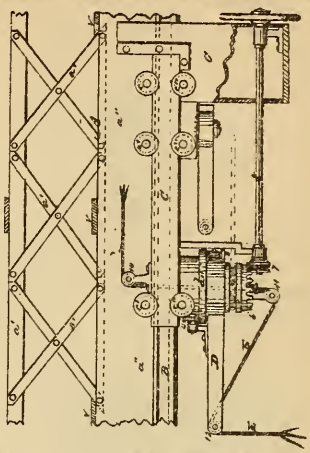
112,827, EDWARD L. MEGILL.
PLATEN FEED-GUIDES.



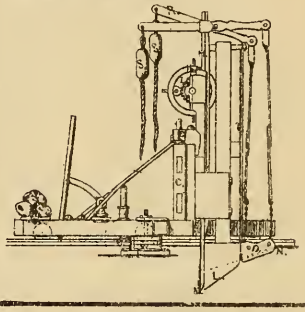
112,828, JOHN W. MIDDLETON.
MANUFACTURE OF IRON AND STEEL.



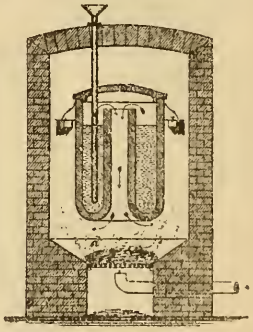
112,829 JOHN W. MIDDLETON.
CRANES.



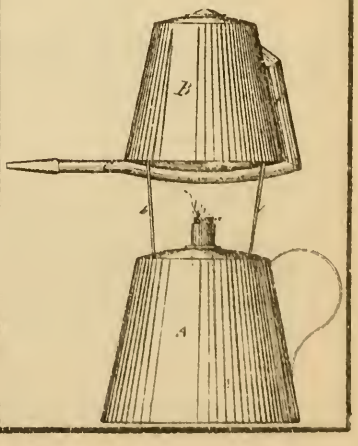
112,830, HERMANN MIELISCH.
PEAT-MACHINES.



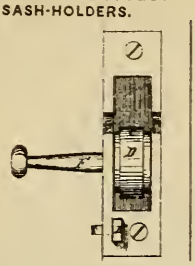
112,831, AD. MILLOCHAU.
APPARATUS FOR REFINING METALS.



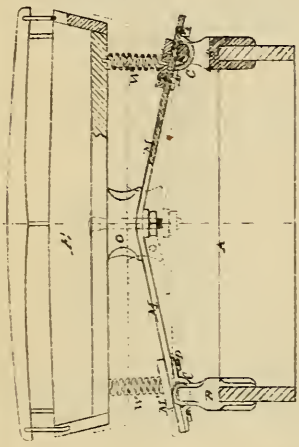
112,832, THEO. F. MOODY
APPARATUS FOR REMOVING PAINT, VARNISH, &c.



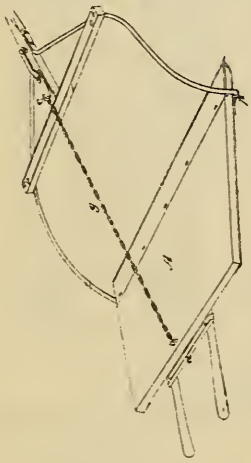
112,833. JAMES B. MORGAN.
SASH-HOLDERS.



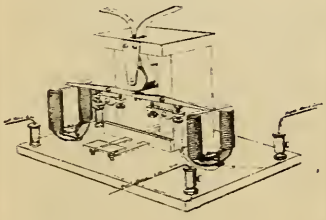
112,834. VALENTINE MYERS.
WAGON-SEATS.



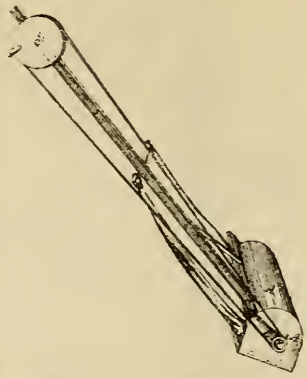
112,835. WILLIAM T. NICHOLS
ROAD-SCRAPERS.



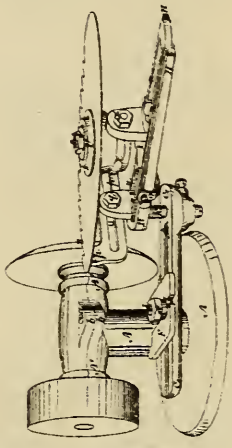
112,836. H. C. NICHOLSON.
TELEGRAPH APPARATUS



112,837 GEORGE S. NORRIS.
SWEEPING-MACHINES.

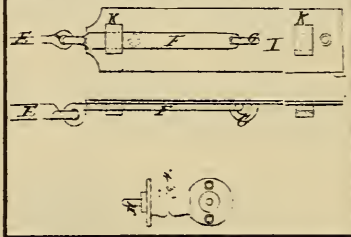


112,838. JOHN L. OTIS.
MACHINES FOR GRINDING SAW-TEETH.

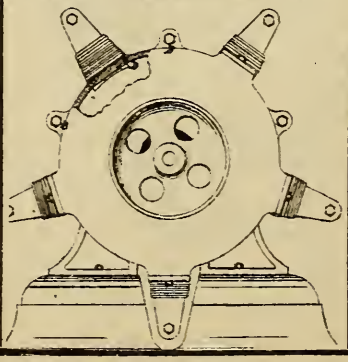


112,839, ADOLPH OTT.
PREPARING TIN SALTS FROM TINNERS' WASTE.

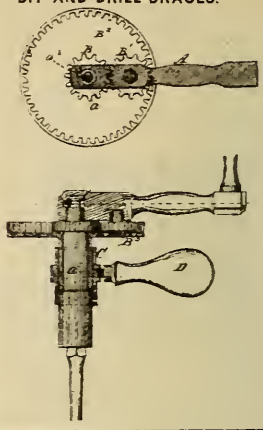
112,840, CHARLES PABST.
SHUTTER-FASTENERS.



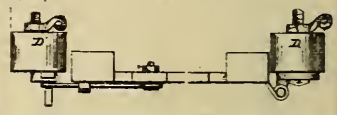
112,841, HENRY M. PAINE.
ELECTRO-MAGNETIC MOTORS.



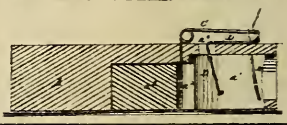
112,842, G. G. PARKER.
WM. P. DODGE.
BIT AND DRILL-BRACES.



112,843, NOAH PARKER. GATES.

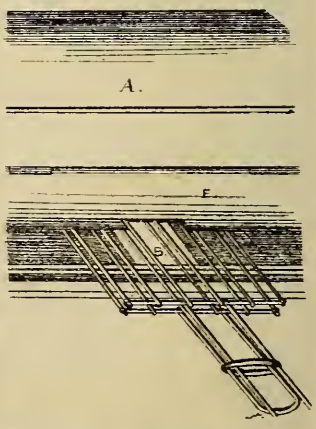


112,844. JAMES D. PELL. ANIMAL-TRAPS.

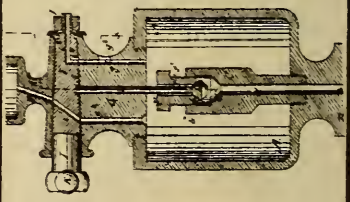


112,845, JOHN M. PETIT.
PREPARING SEED-CORN.

112,846 EDWD. B. PHELPS, BROILERS.
JAMES P. McLEAN.

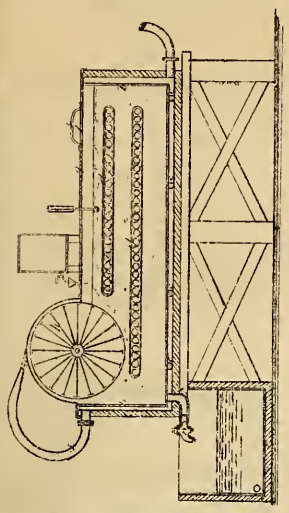


112,847 TAPPING REEVES.
LUBRICATORS.

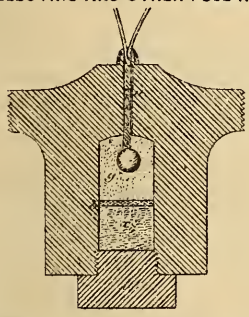


112,848. E. A. L. ROBERTS.
MANUFACTURE OF NITRO-GLYCERINE.

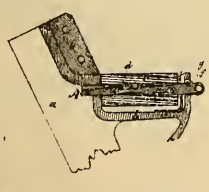
112,849 E. A. L. ROBERTS.
MANUFACTURE OF NITRO-GLYCERINE.



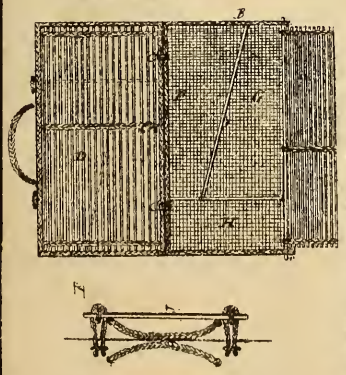
112,850 E. A. L. ROBERTS.
ELECTRIC AND OTHER FUSE-HEADS.



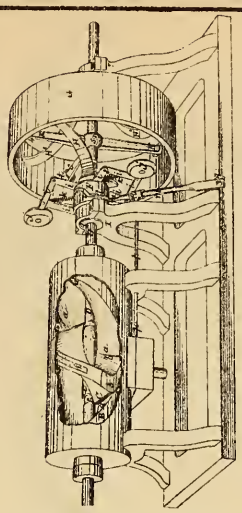
112,851. EDWD. P. ROCHE.
"CHAFE-IRONS" FOR WHEELED VEHICLE



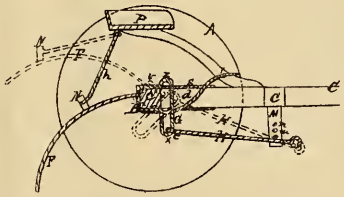
112,852, J. ROUSSILLON
WINE-BASKETS.



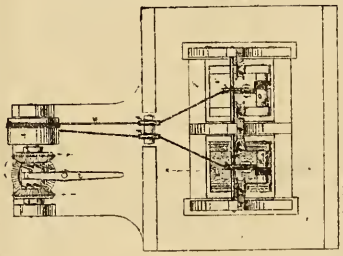
112,853 STEPHEN P. RUGGLES.
STEAM-ENGINES.



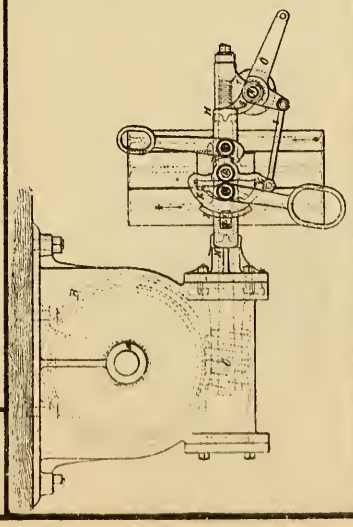
112,854. JOHN H. SCHOONMAKER.
HORSE HAY-RAKES.



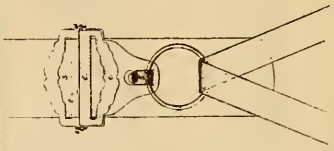
112,855. JOHN SCOTT.
HOISTING-MACHINES.



112,856. WM. SELLERS.
HOISTING-MACHINES.

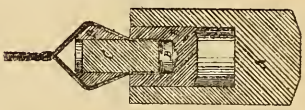


112,857 A. SHENFIELD.
BUCKLES FOR SUSPENDERS.

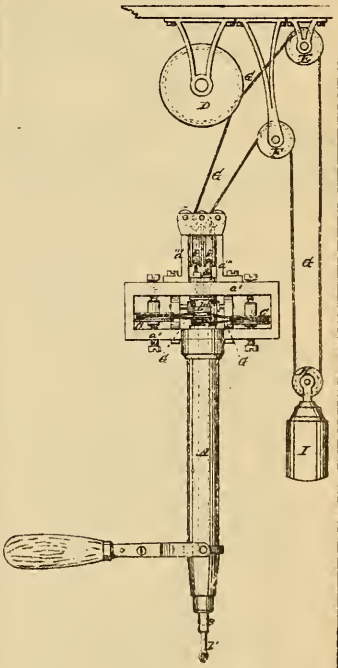


112,858. DANA SLADE.
COMPOUNDS FOR TREATING CATARRH. &c., BY INHALATION.

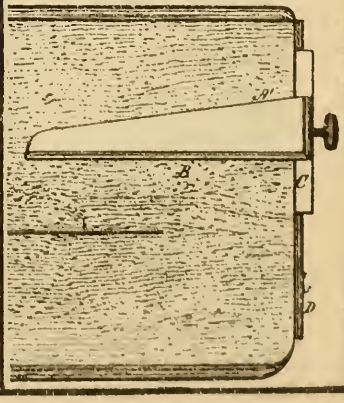
112,859. H. JULIUS SMITH.
ELECTRIC FUSES.



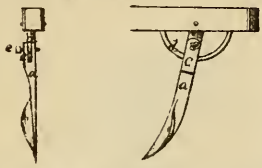
112,860. GEORGE B. SOLEY.
HAND-TOOLS FOR CARVING AND ENGRAVING.



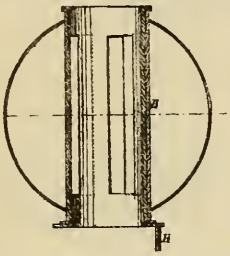
112,861. FRANKLIN L. SPRAGUE.
GAUGES FOR SAW-TABLES.



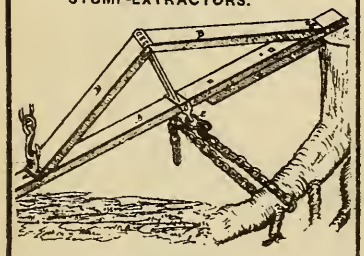
112,862. WM. D. STROUD.
CULTIVATORS.



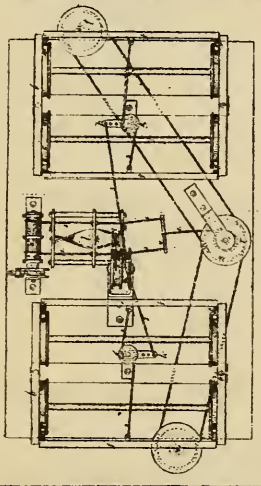
112,863. LEONARD S. TAYLOR. DAMPERS.



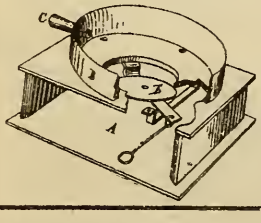
112,864, ALBERT D. TILYOU.
STUMP-EXTRACTORS.



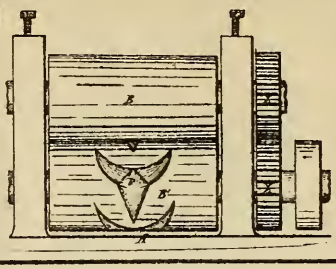
112,865, L. W. TRACY.
BRAKES FOR RAILWAY-CARS.



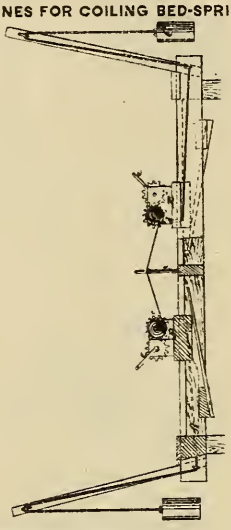
112,866. EBEN TRASY.
TUYERES.



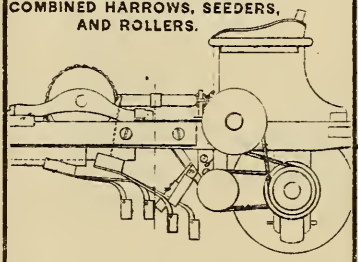
112,867. J. T. TYLER.
ROLLS FOR THE MANUFACTURE OF PLANTERS' HOES.



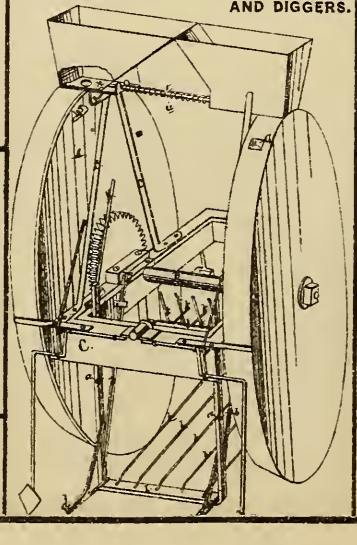
112,868. M. VAN VLECK.
MACHINES FOR COILING BED-SPRINGS.



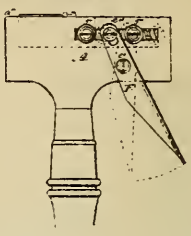
112,869, JOSEPH VESSOT, SEN'R.
SAMUEL VESSOT, JU'R.
COMBINED HARROWS, SEEDERS, AND ROLLERS.



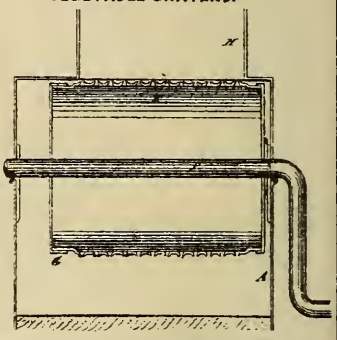
112,870. JAMES CARROLL WALKER.
COMBINED POTATO-PLANTERS AND DIGGERS.



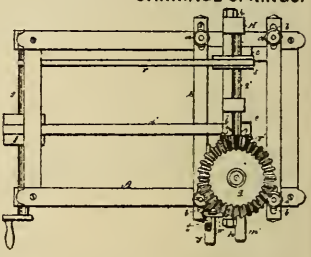
112,871. JOHN WALTERS.
HAND-STAMPS.



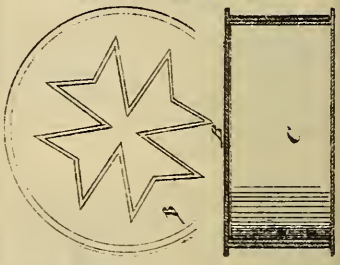
112,872. JACOB WEHRLE.
W. WITTLINGER.
VEGETABLE-GRATERS.



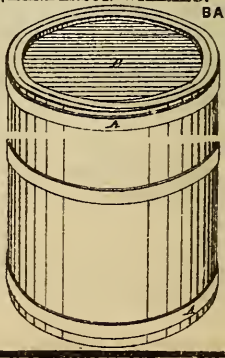
112,873. HEBRON MAYHEW WENTWORTH.
MACHINES FOR GRINDING CARRIAGE-SPRINGS.



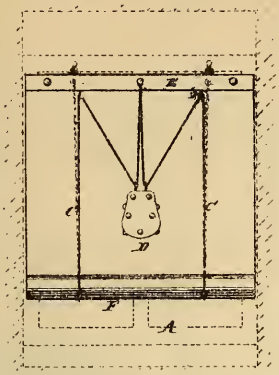
112,874, SETH WHEELER.
EDGAR JEROME.
FINISHING PAPER BOXES.



112,875. HENDERSON WILLARD.
BARRELS.

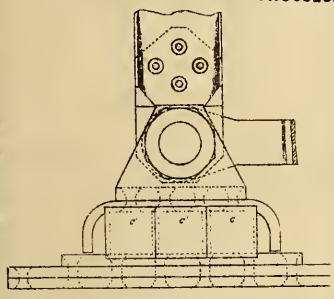


112,876. THOS. C. WILLIAMS.
WINDOW-CURTAIN FIXTURES.



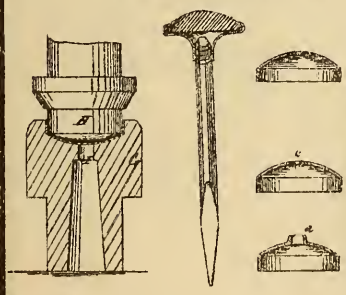
112,877. THOMAS ATWOOD WILLSON.
GLASS FOR THE MANUFACTURE OF SPECTACLES.

112,878. JOS. M. WILSON.
BOLSTER-BLOCKS AND PIER OR ABUTMENT-PLATES FOR BRIDGES AND ROOF-TRUSSES.

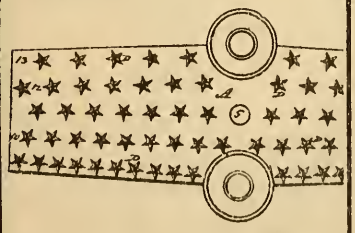


112,879. JOHN WINGER.
COMPOSITIONS FOR STAINING WOOD.

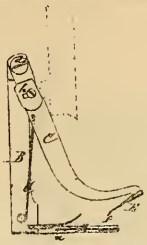
112,880. LEOPOLD WOLF.
MECHANISMS FOR MANUFACTURING HEADS FOR PICTURE-NAILS.



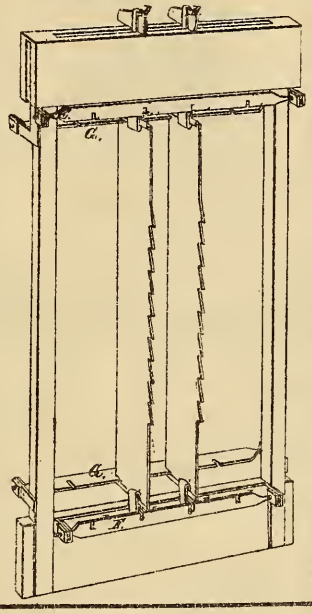
112,881 CHAS. J. WOOD.
STEAM-HEATERS.



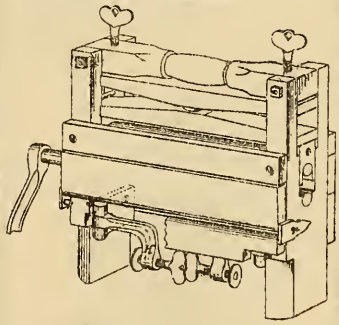
112,882. FREDERIC B. ZAY.
RUFFLING ATTACHMENTS FOR SEWING-MACHINES.



112,883. EMANUEL ANDREWS.
SAW-MILLS.



112,884. ALFRED M. BAILEY.
CLOTHES-WRINGERS.



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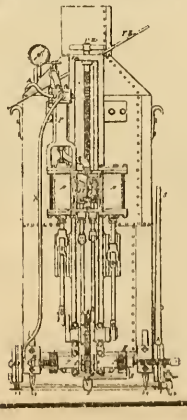
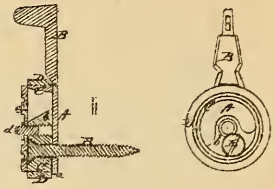
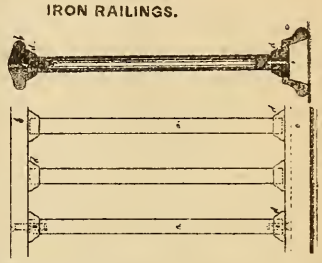


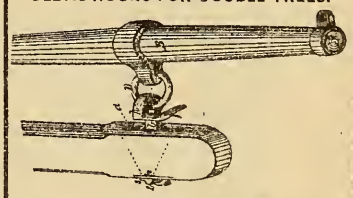
112,886. WM. THOS. BAUSMITH.
SASH-HOLDERS.



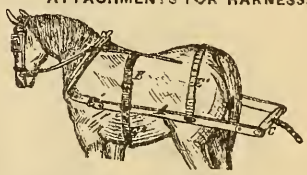
112,887. SAMUEL S. BENT.
IRON RAILINGS.



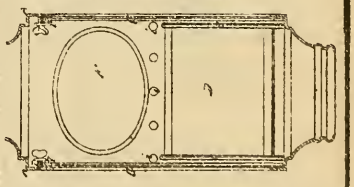
112,888. WARREN W. BENTLY.
CLEVIS-HOOKS FOR DOUBLE-TREES.



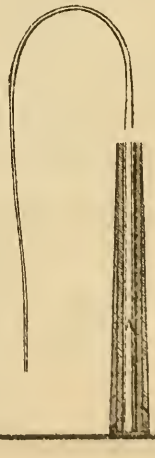
112,889. W. A. BLUNDELL
ATTACHMENTS FOR HARNESS.



112,890. EMIL ROESCH.
ADVERTISING-LAMPS.



112,891. JOHN J. BOHLER. WHIP-STOCKS.



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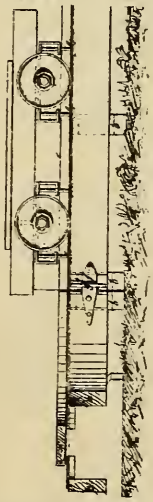
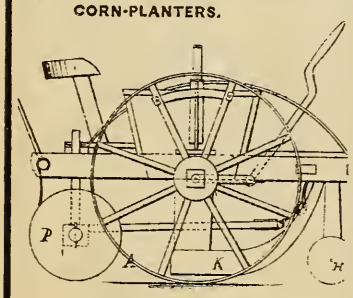
MOWING-MACHINES.

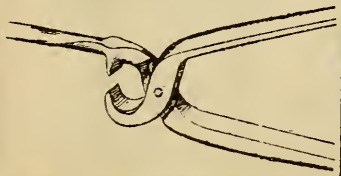
112,893. T. BOOTSMANN.
PORTABLE RAILWAYS.



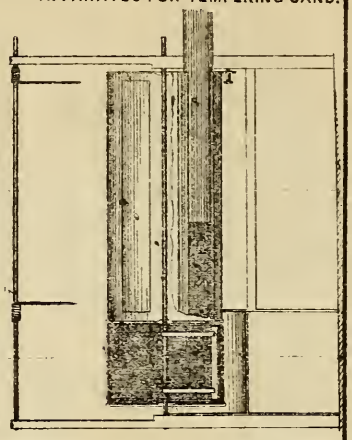
112,894. R. A. BOULWARE.
CORN-PLANTERS.



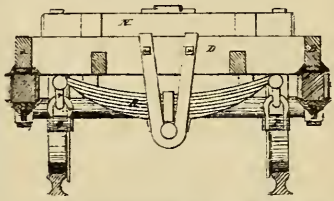
112,895. MICHAEL C. BOYER.
DEVICES FOR OPENING OYSTERS.



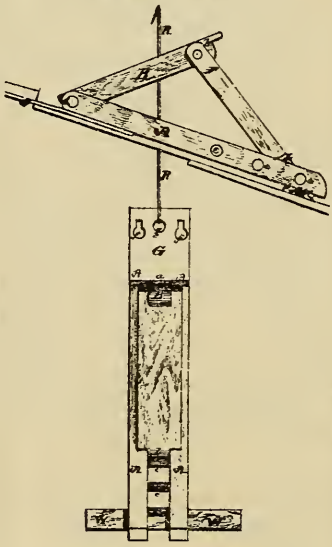
112,896. JOHN P. BROADMEADOW.
APPARATUS FOR TEMPERING SAND.



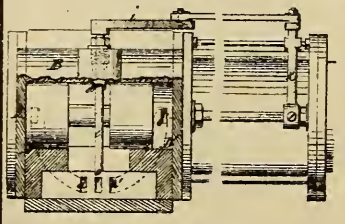
112,897. CHAUNCEY S. BUCK.
RAILWAY-CAR TRUCKS.



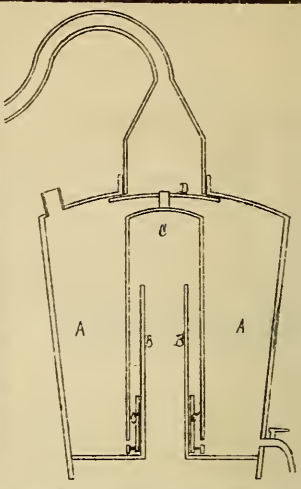
112,898. JONATHAN W. CADWELL.
ROOFING-BRACKETS.



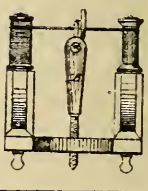
112,899. A. S. CAMERON.
VALVE-GEARS FOR STEAM-ENGINES.



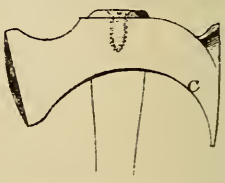
112,900 JAMES A. CAMPBELL.
STILLS.



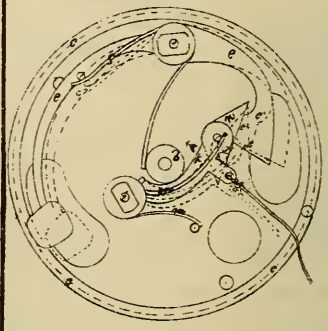
112,901. DWIGHT MADISON CHURCH.
THREAD-GUIDES FOR WINDING-MACHINES



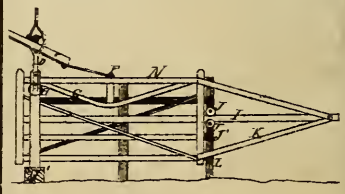
112,902. ARTHUR CLARKE.
SHOEMAKERS' HAMMERS.



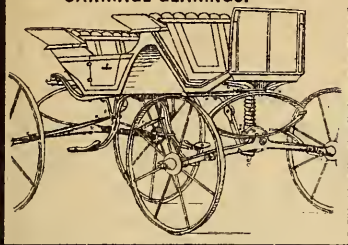
112,903. JOHN P. CONNELL.
DOOR-BELLS.



112,904. PETER S. CRAWFORD.
GATES.

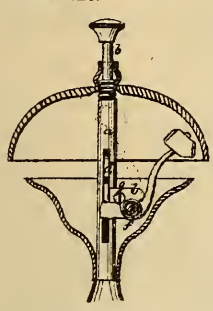


112,905. CORNELIUS CUSTER.
CARRIAGE-GEARINGS.

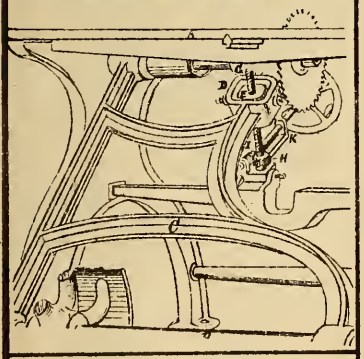


112,906, WALTER D. DAVIS.
CHAS. W. BLAKESLEE.
JOSEPH C. PECK.
HARNESS-ROSETTES.

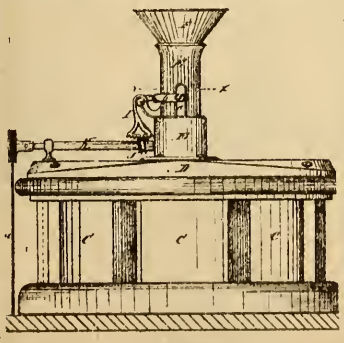
112,907, HENRY A. DIERKES.
JOHN FRETTS.
CALL-BELLS.



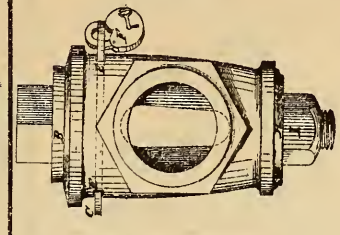
112,908, BENN F. DUNKLEE.
CIRCULAR-SAW BENCHES.



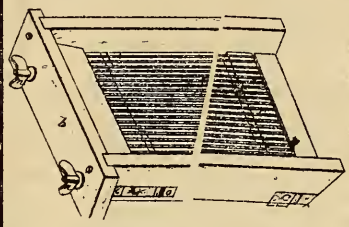
112,909 WM. T. DUVALL.
ADJUSTABLE MILL-FEEDS.



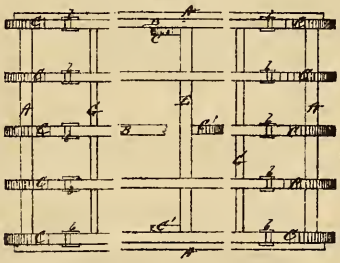
112,910, HENRY ESSEX.
LOCKED COCKS.



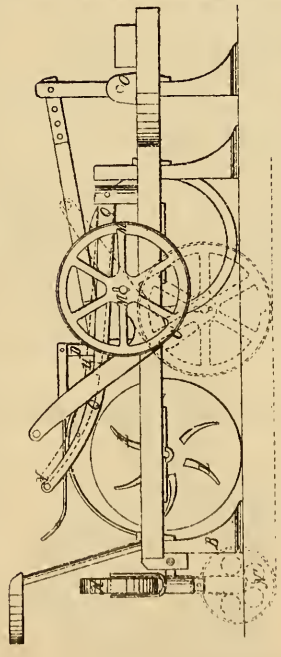
112,911, GEORGE W. FAIR.
SAND-SCREENS.



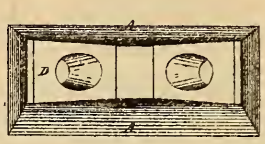
112,912, MATTHEW FALOON.
BED-BOTTOMS.



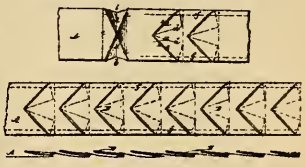
112,913, LAWRENCE F. FRAZEE. PLOWS.



112,914, JOHN FRY.
TUYERES FOR BLAST-FURNACES.



112,915, ANSEL HECHT.
CENTER-POINT TRIMMINGS.



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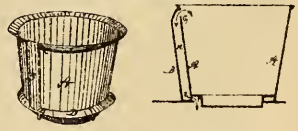
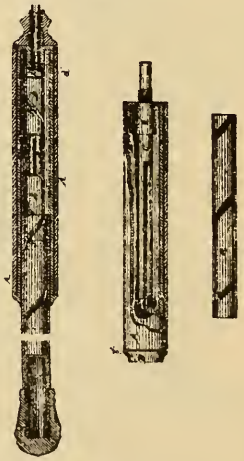
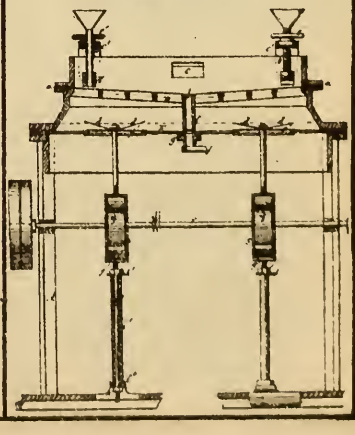
CULINARY VESSELS.



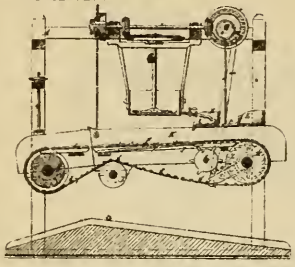
112,917 WILLIAM S. HICKS.
PENCIL-CASES.



112,918, WILLIAM HOOPER.
ORE-SEPARATORS

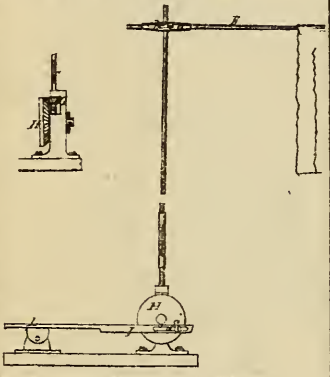


112,919, WILLIAM HOOPER.
ORE-SEPARATORS.

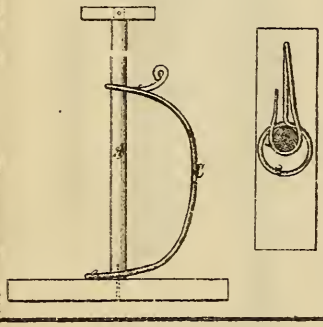


112,920, MARTHA HUDDLESTON.
MEDICAL COMPOUNDS, OR SALVES.

112,921, FRANK M. HUNT.
FANS AND FLY-DRIVERS.

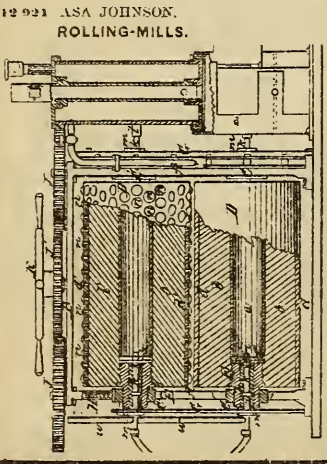


112,922, SETH T. HUTCHINS.
CATTLE-TIES.

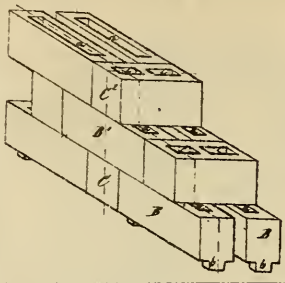


112,923 CANCELED.

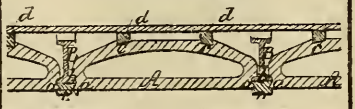
112,924 ASA JOHNSON.
ROLLING-MILLS.



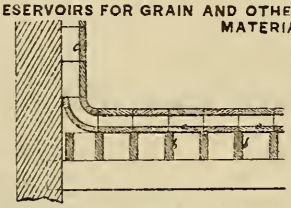
112,925.
HOLLOW-TILE WALLS.



112,926, GEO. H. JOHNSON,
BALTHASAR KREISCHER.
HOLLOW-TILE FLOORS.



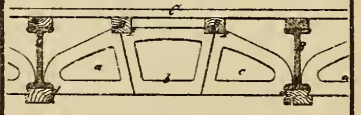
112,927, GEO. H. JOHNSON.
BALTHASAR KREISCHER.
RESERVOIRS FOR GRAIN AND OTHER MATERIALS.



112,928, CHARLES P. KENYON.
FIRE-ESCAPES.

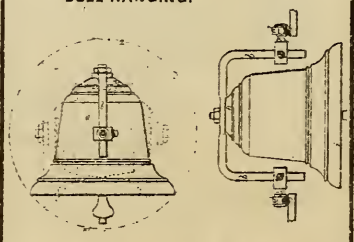
112,929, BALTHASAR KREISCHER.
COMPOSITION-TILES FOR FIRE-PROOFING BUILDINGS.

112,930, BALTHASAR KREISCHER.
HOLLOW-TILES.



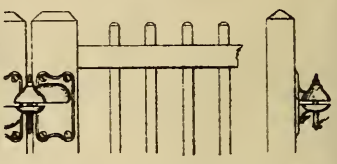
112,931, GEORGE W. LANGDON.
STOVE-PIPE SHELVES AND CLOTHES-DRIERS.

112,932, A. LAROYE.
BELL-HANGING.

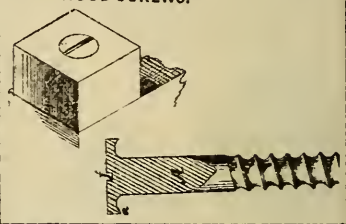


112,933, W. A. LEGGO.
LEGGOTYPING.

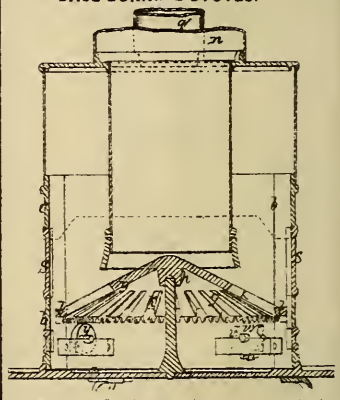
112,934, M. R. LEMMAN. HINGES.



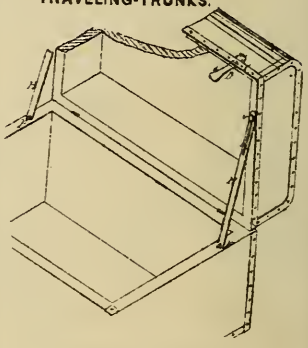
112,935, ANDREW B. LIPSEY.
WOOD-SCREWS.



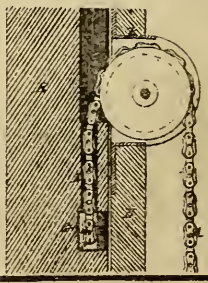
112,936, LYMAN LITCHFIELD.
BASE-BURNING STOVES.



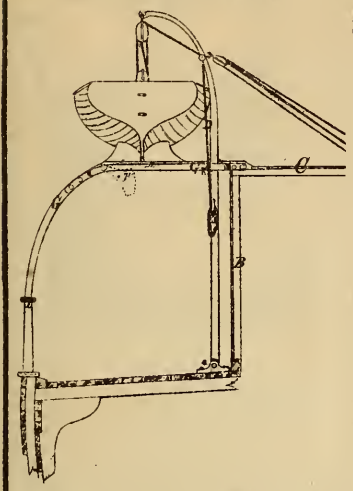
112,937, J. C. LOCKE.
TRAVELING-TRUNKS.



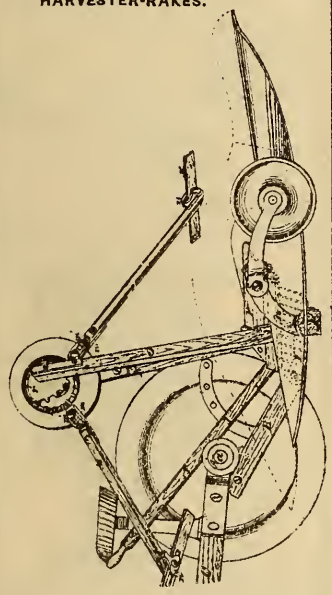
112,938, MICHAEL MAGRATH.
CHAINS FOR HANGING SASH.



112,939, GEORGE W. MALLORY.
BOAT-LOWERING APPARATUS.



112,940, JOHN P. MANNY.
HARVESTER-RAKES.



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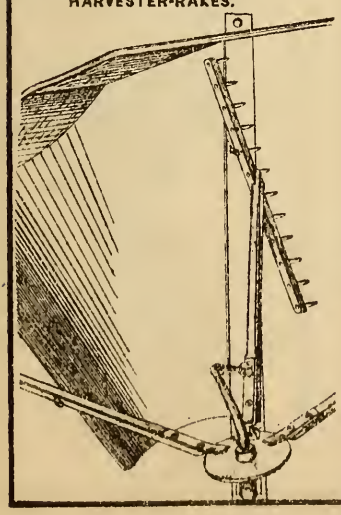
HARVESTER-RAKES.



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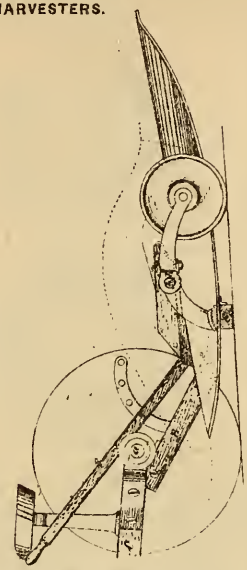
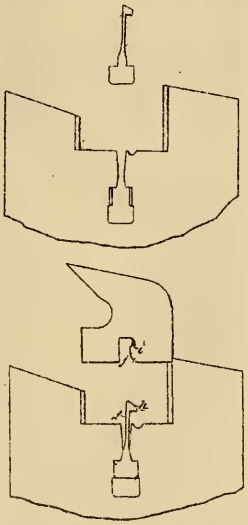
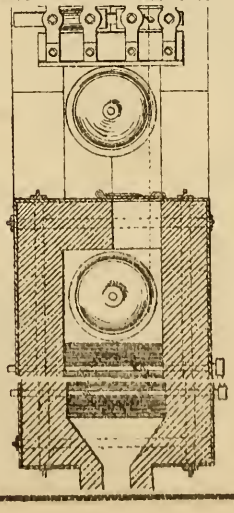
HARVESTERS.



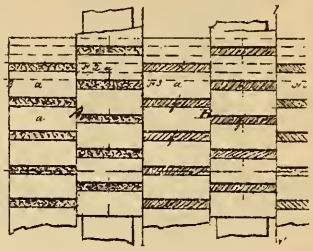
112,943. THOMAS P. MARSHALL.
SAWS WITH DETACHABLE TEETH.



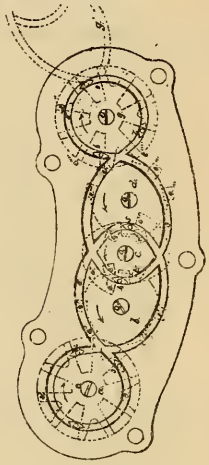
112,944. BENJ. A. MASON.
APPARATUS FOR MANUFACTURING WIRE.



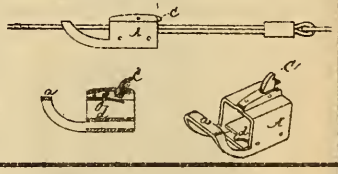
112,945, GORDON A. MAY.
WOOD PAVEMENTS.



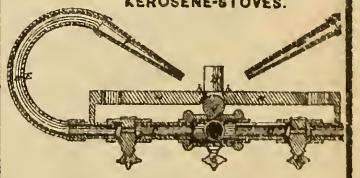
112,946, JOHN McCAHEY.
STEPHEN B. SALISBURY.
BRAIDING-MACHINES.



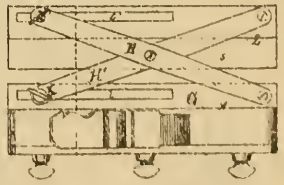
112,947, DUNCAN McMILLAN.
ABRAM ROWAN.
BUCKLES.



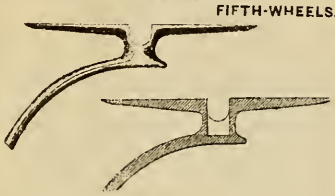
112,948, ROBERT B. MITCHELL.
STEAMING ATTACHMENTS FOR KEROSENE-STOVES.



112,949, ELLIS H. MORRIS.
MOLDING-PLANES.

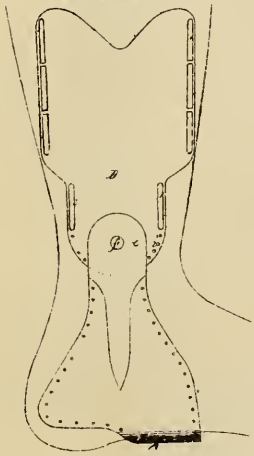


112,950, F. B. MORSE.
KEEPS AND BRACKS FOR FIFTH-WHEELS.

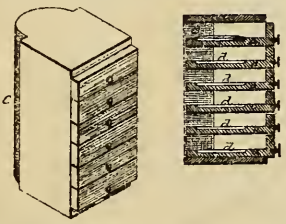


112,951, E. P. NEEDHAM.
PENCIL-SHARPENERS.

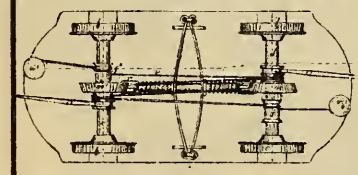
112,952, J. S. NISWANDER.
ANKLE-BRACES.



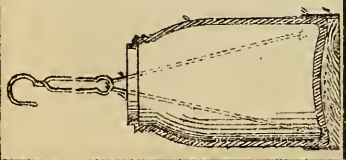
112,953 H. H. OLDS. PIE-CASES.



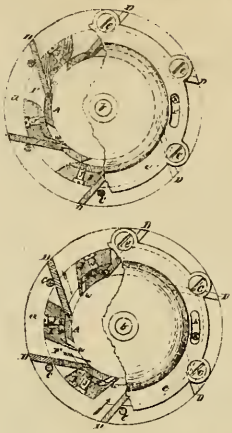
112,954, JOSEPH PARADIS.
CAR-BRAKES AND STARTERS.



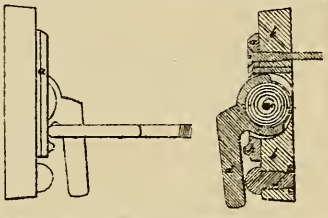
112,955, STEPHEN R. PINCKNEY.
LIFTERS FOR FRUIT-JARS.



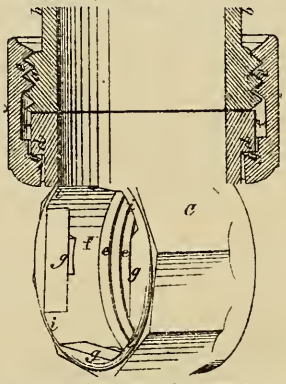
112,956, SAMUEL A. PRESCOTT.
GATES FOR TURBINE WATER-WHEELS.



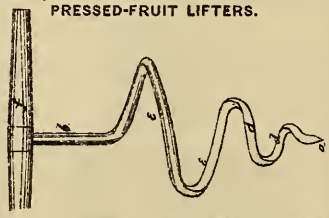
112,957, P. PRUD'HOMME.
APPARATUS FOR ESTABLISHING ELECTRICAL COMMUNICATION IN RAILROAD-TRAINS.



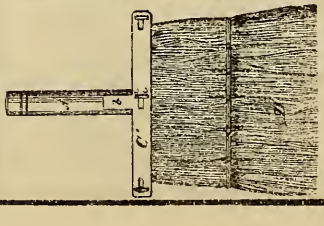
112,958, JOSEPH B. RAMP.
PIPE-COUPLINGS.



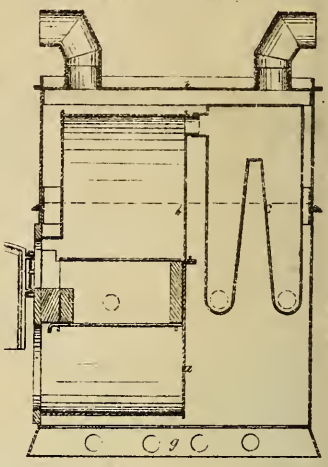
112,959, ENNIS A. RAYMOND.
PRESSED-FRUIT LIFTERS.



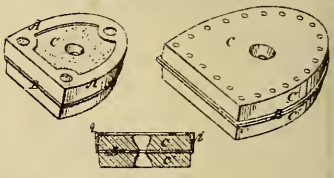
112,960, CHARLES L. REID. BROOMS.



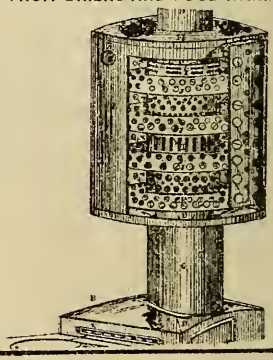
112,961, JESSE REYNOLDS.
PORTABLE FURNACES.



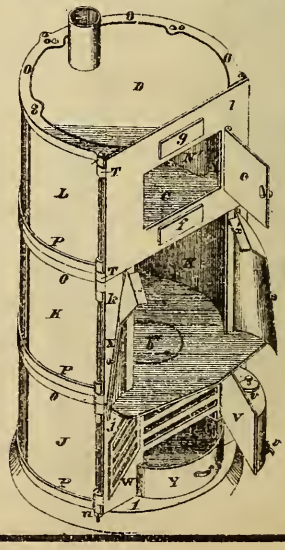
112,962, FREDK. RICHARDSON
FRANCIS HACKER.
REVERSIBLE BOOT-HEELS.



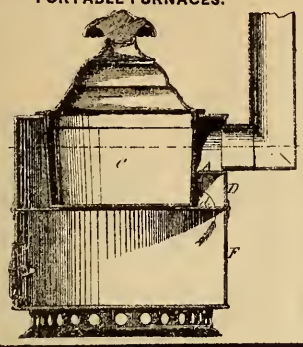
112,963 SEELYE RICHMOND.
FRUIT-DRIERS AND FOOD-WARMERS.



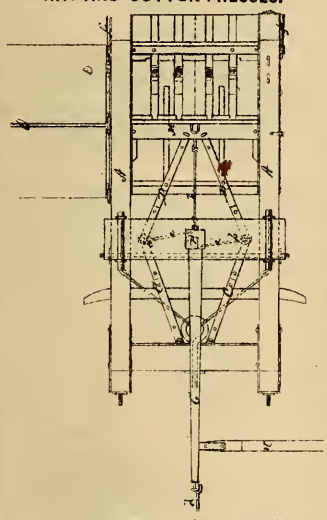
112,964, EDWARD Y. ROBBINS STOVES.



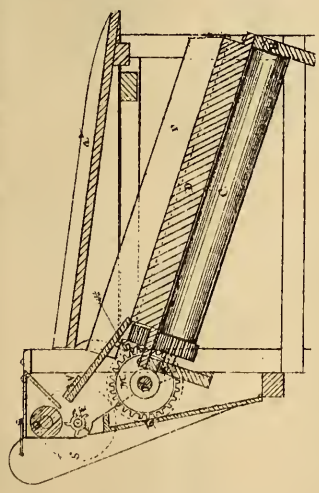
112,965, WILLIAM D. ROBERTSON.
PORTABLE FURNACES.



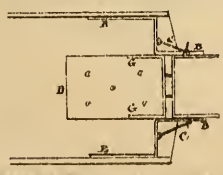
112,966, C. A. ROBINSON.
HAY AND COTTON-PRESSES.



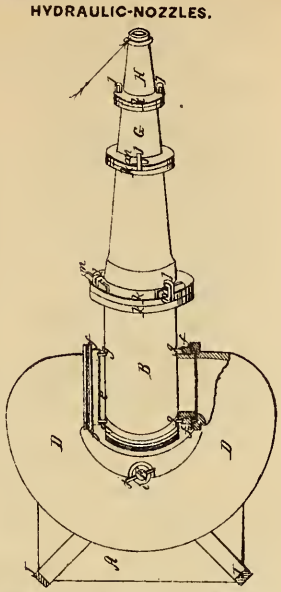
112,967, JACOB RUSSELL.
MACHINES FOR HUSKING CORN.



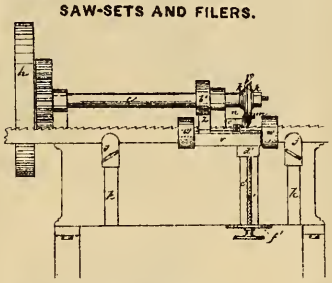
112,968, JOHN FREDERICK SENER.
END-GATES FOR WAGONS.



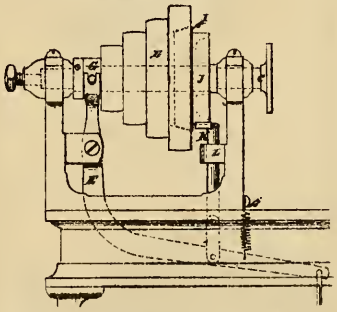
112,969, HENRY SHAW.
HYDRAULIC-NOZZLES.



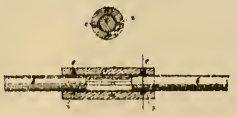
112,970, THOMAS L. SHAW.
SAW-SETS AND FILERS.



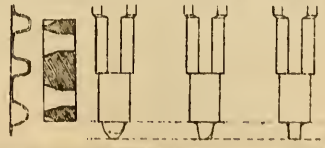
112,971, SAMUEL D. SHELDON.
TURNING-LATHES.



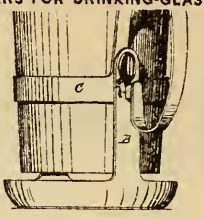
112,972, JAMES SHERRY.
SHAFT-COUPLINGS.



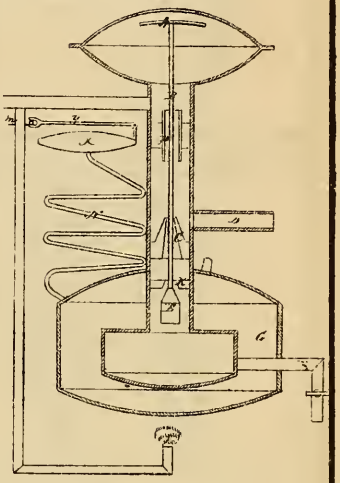
112,973, STEPHEN N. SMITH.
MANUFACTURE OF EVELET-STOOKS.



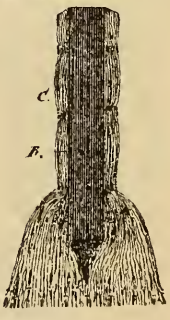
112,974, J. V. SNIDER.
HOLDERS FOR DRINKING-GLASSES.



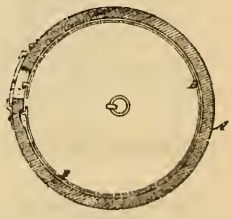
112,975, THEODORE G. SPRINGER.
GAS-MACHINES.



112,976, GREENLEAF STACKPOLE.
WHISK-BROOMS.

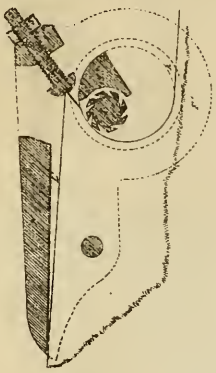


112,977, WILLIAM STERNBERG.
CHEESE-HOOPS.

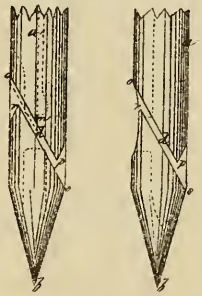


112,978 ROSWELL H. ST. JOHN.
HINGES FOR SEWING-MACHINES.

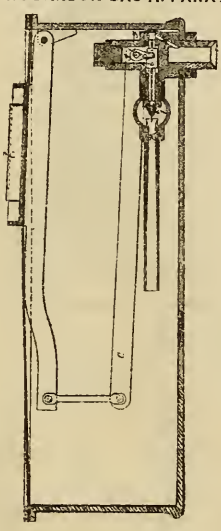
112,979. NATHANIEL F. STONE.
SAW-GUMMERS.

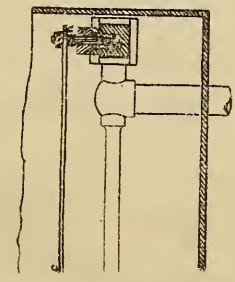


112,980. EDWIN STRAIN.
NEEDLES FOR SEWING-MACHINES.

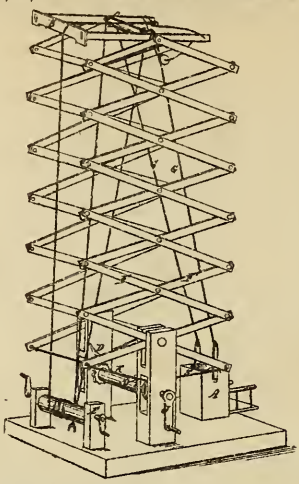


112,981, MYRON H. STRONG.
W. I. REID.
HYDROCARBON-GAS APPARATUS.





112,982, T. L. SUMMERIL. FIRE-ESCAPES.



112,983, JOHN MERRITT THATCHER.
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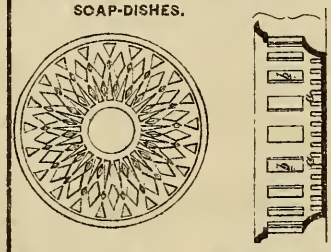
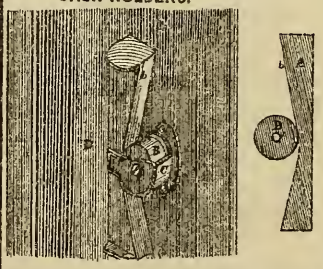
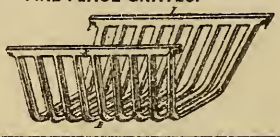


112,984, S. MILLETT THOMPSON.
BOOK-SUPPORTS.

112,985, ALEXANDER THOMSON.
SASH-HOLDERS.



112,986 J. W. THORNILEY.
FIRE-PLACE GRATES.



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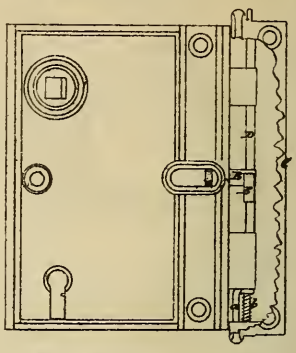

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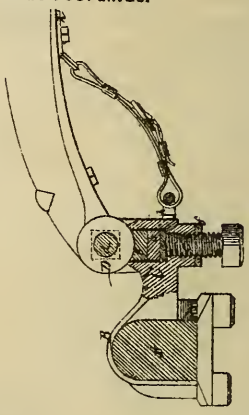
112,989, CHARLES TWOMBLY.
THILL-COUPLINGS.



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HUGH SMITH.
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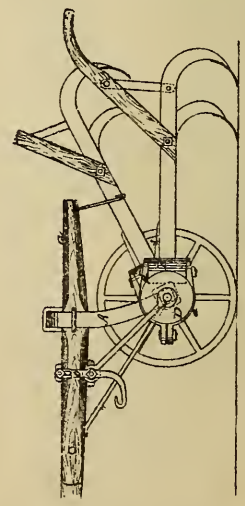

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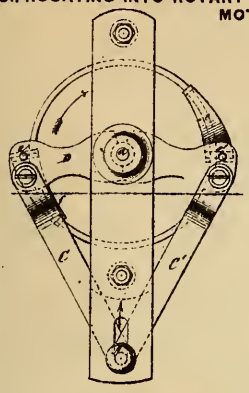
APPARATUS FOR CONVERTING RECIPROCATING INTO ROTARY MOTION.



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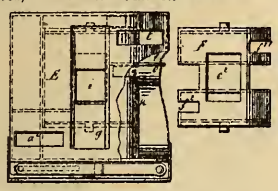
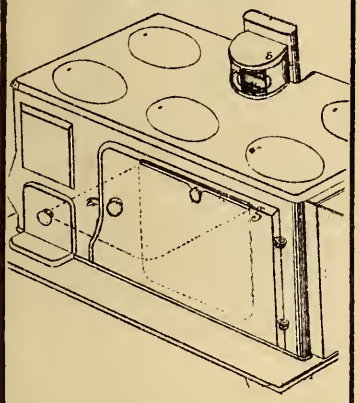


112,993. GEO. W. WALKER.
COOKING-STOVES.



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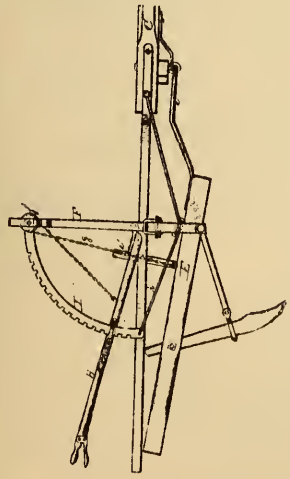
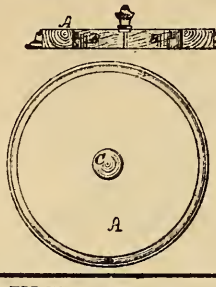
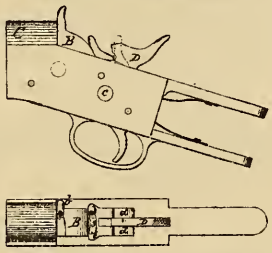


112,995, WOODWARD E. WERTENBAKER.
FUEL AND KINDLING-WOOD.

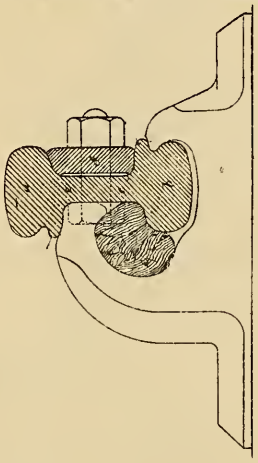
112,996, WILLIAM WESTLAKE.
ZINC-BOARDS FOR STOVES.



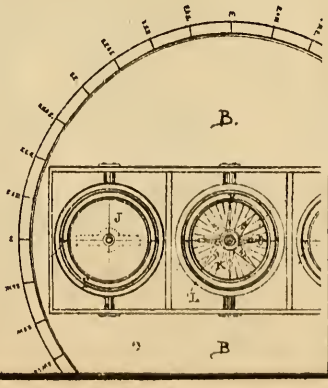
112,997. ELI WHITNEY.
BREECH-LOADING FIRE-ARMS.



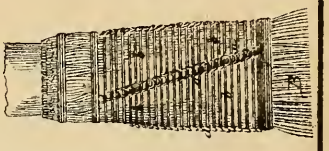
112,998, WILLIAM EDWARD WINBY.
RAILWAY-RAILS AND CHAIRS.



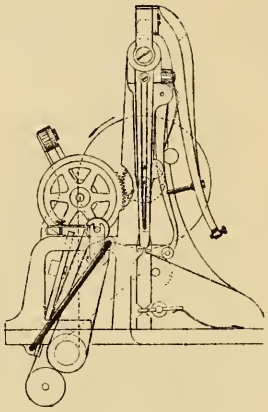
112,999. GEO. W. WOOD.
SHIPS' COMPASSES.



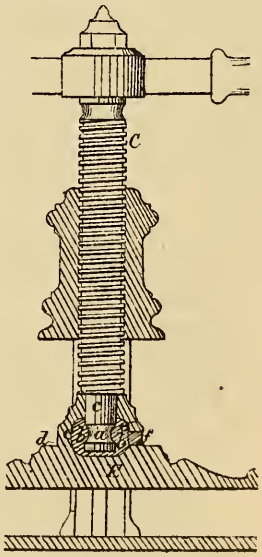
113,000. JAMES H. ANDERSON.
TYING BROOMS AND BRUSHES.



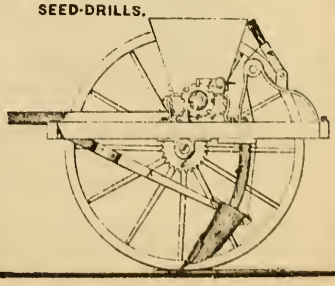
4,305, C. O. CROSBY.
SEWING-MACHINES.



4,306. E. W. FROST.
COPYING-PRESSES.



4,307, M. C. YOUNGLOVE.
SEED-DRILLS.



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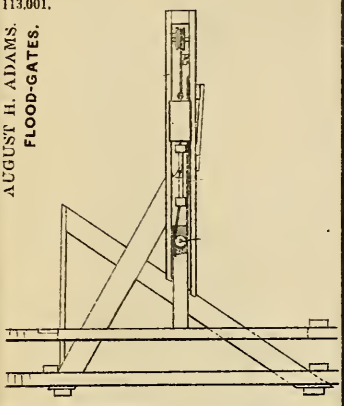
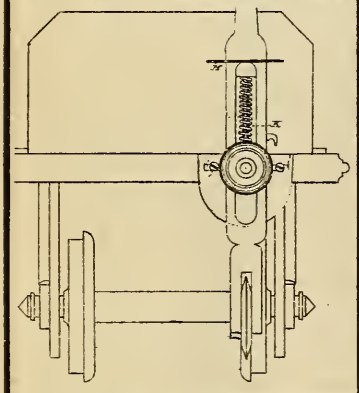
MARCH 28, 1871.

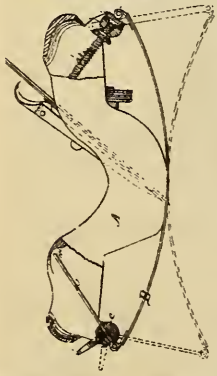
113,001. AUGUST H. ADAMS. FLOOD-GATES.



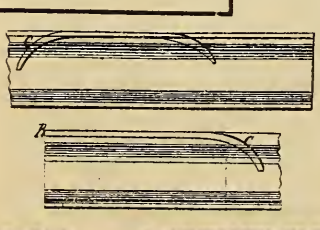
113,002. JAMES ALCORN. APPARATUS FOR OPERATING RAILWAY-SWITCHES.



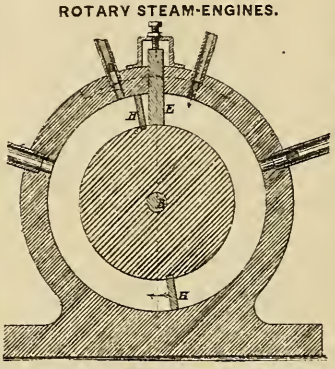
113,003. LEONARD BAILEY. PLANE-STOCKS.



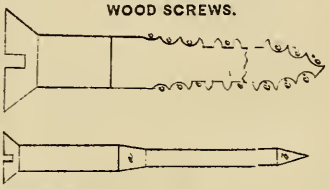
113,004. JOHN T. BARNETT. PATCHES FOR RAILROAD-RAILS.



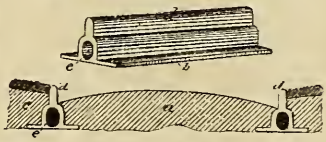
113,005. WM. BARRY. ROTARY STEAM-ENGINES.



113,006. JASON A. BIDWELL. WOOD SCREWS.

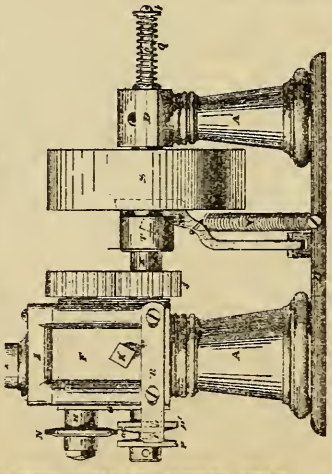


113,007. CHARLES BIEHL. COMBINED BORDERING AND DRAIN-TILES.

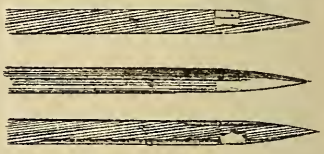


113,008. HORACE H. BIGELOW. AWLS FOR HEEL-MACHINES.

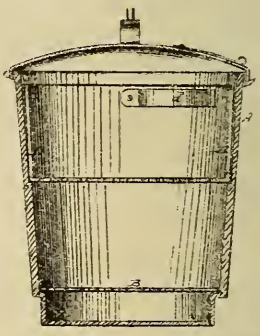
113,009. HORACE H. BIGELOW. MACHINES FOR TURNING RANDS FOR SHOES.



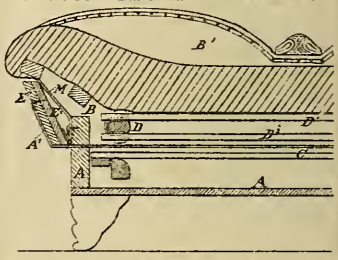
113,010. JOSEPH B. BLANCHARD. NEEDLES FOR SEWING-MACHINES.



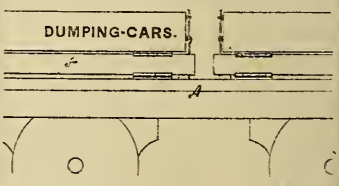
113,011. PETER BOESEN. MICHAEL BEDESSEM. CULINARY-BOILERS.



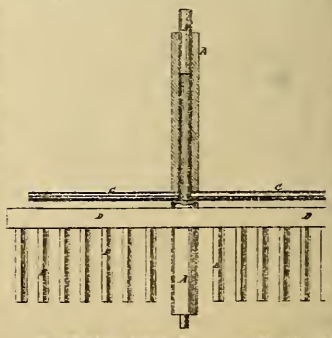
113,012. JOHN BRADA. LOUNGE-BEDS.



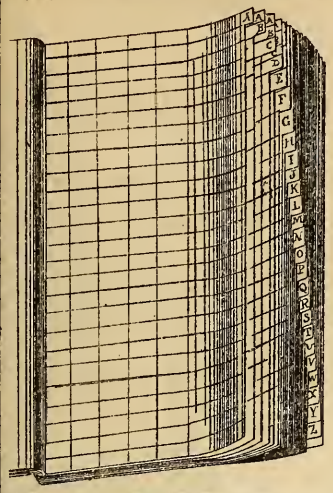
113,013. DANIEL J. BRIMMER. DUMPING-CARS.



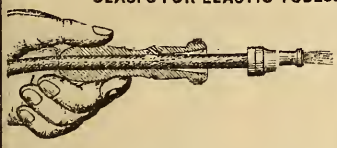
113,014. LUDWIG BRUMLEN. MANUFACTURE OF WHITE LEAD.



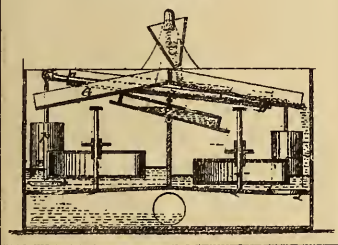
113,015, O. FLAGG BULLARD. INDEXES.



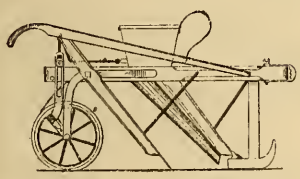
113,016, WILLIAM BUNCE. REGULATING CLASPS FOR ELASTIC TUBES.



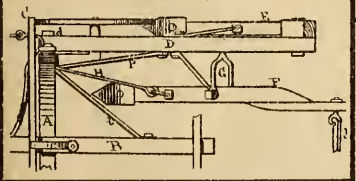
113,017, ANNA BÜTTNER. LIQUID-METERS.



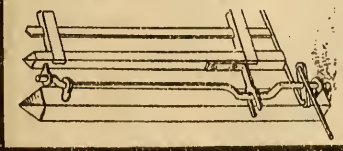
113,018, J. B. CONATY. MILTON CATT CORN-PLANTERS.



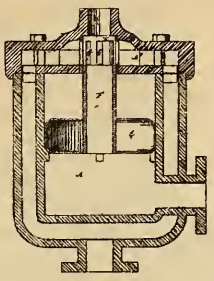
113,019, LEE W. CONNER. RICHARD G. CONNER. CULTIVATORS.



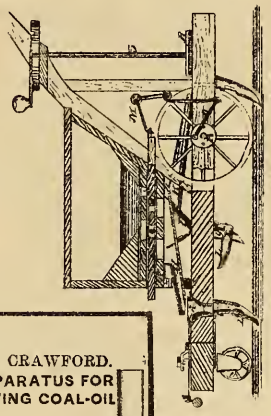
113,020, JAMES B. COTTOM. GATES.



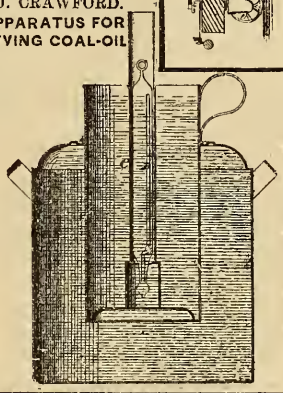
113,021, WILLIAM CRAIG. HENRY L. BREVOORT. CONDENSERS FOR STEAM-ENGINES.



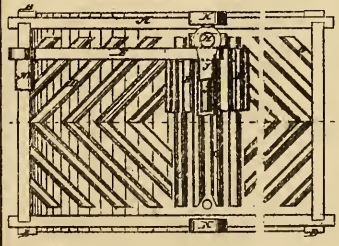
113,022, JESSE W. CRAVEN. ALBERT CLARK. GRAIN-DRILLS.



113,023, BENJ. CRAWFORD. APPARATUS FOR PURIFYING COAL-OIL.

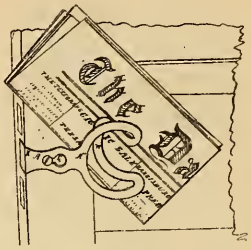


113,024, ELIAS CRICK. WASHING-MACHINES.

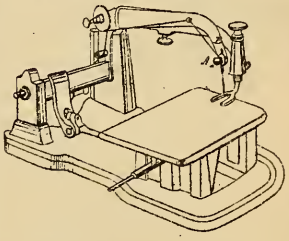


113,025, ALONZO G. CROSSMAN. STEERING APPARATUS.

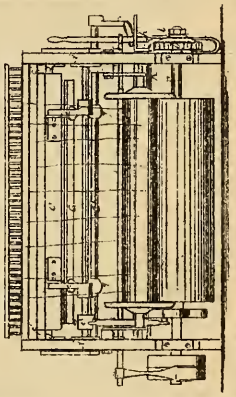
113,026, JACOB M. CRULL. PAPER-CLIPS.



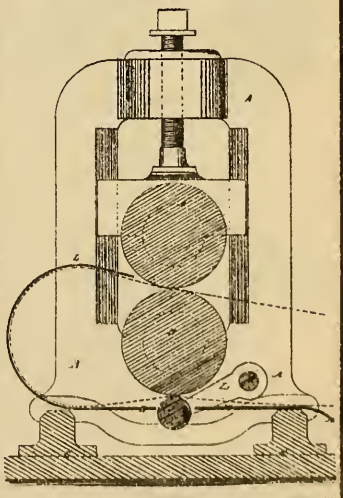
113,027, EDWIN L. CRUMB. NEEDLE-HOLDERS AND TENSION DEVICES FOR SEWING-MACHINES.



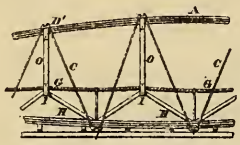
113,028, EDWIN H. CUMMINGS. GRIMSHAW HEYES. THOMAS ENTWISTLE. STOP-MOTIONS FOR WARPING-MACHINE



113,029, ORVILLE C. DEWEY. JOSEPH DUDLEY. FRIEDRICH LINDEMANN. NAIL-PLATE ROLLING.

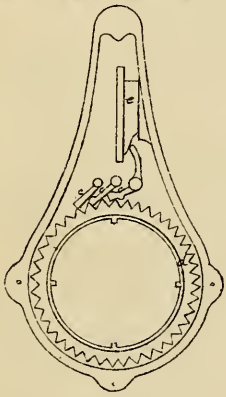


113,030, FERDINAND DIECKMANN. BRIDGES.

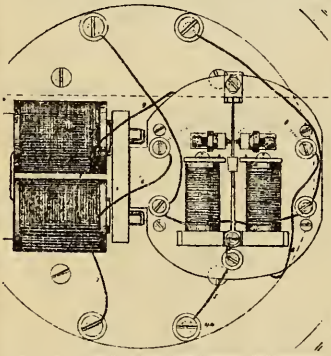


113,031, WILLIAM CHARLES EDGE.
DEVICES FOR PIERCING AND LINING EARS FOR THE RECEPTION OF EAR-RINGS.

113,032, JOSEPH EDGECOMB.
PURCHASES FOR CAPSTANS.



113,033, THOMAS A. EDISON,
PRINTING-TELEGRAPH APPARATUS.



113,034. THOMAS A. EDISON.
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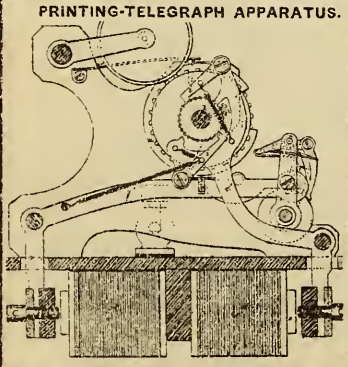
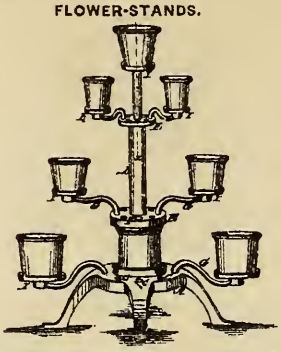
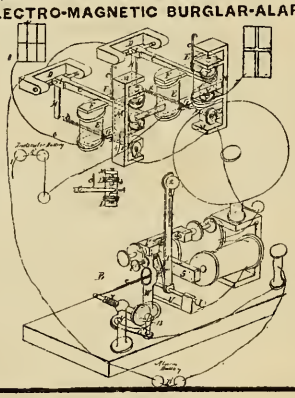


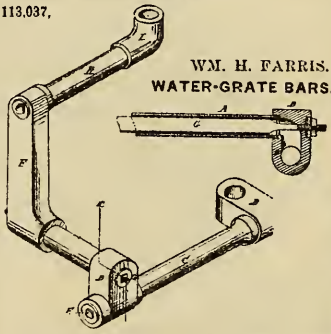
113,035, GARRETT ERKSON.
FLOWER-STANDS.



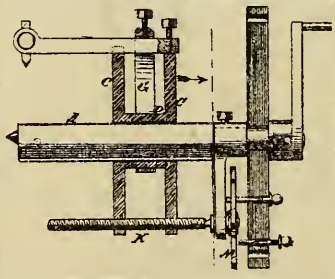
113,036. WILSON E. FACER.
ELECTRO-MAGNETIC BURGLAR-ALARM



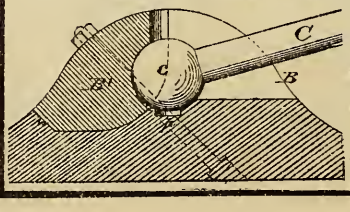
113,037,
WM. H. FARRIS.
WATER-GRATE BARS.



113,038, JOHN FRANKLIN FINGER.
HAND-TURNING AND BORING-MACHINE

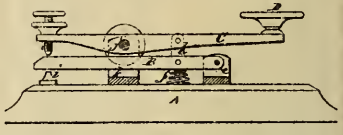


113,039, EDWARD G. FISH.
PITMAN-ROD CONNECTIONS.

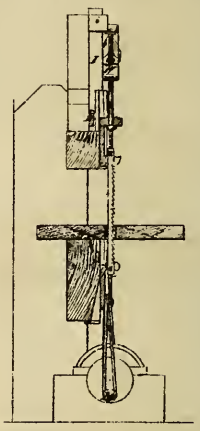


113,040, RUFUS B. FOWLER.
DANIEL F. BRANDON.
COATING IRON AND STEEL WITH MOLTEN IRON.

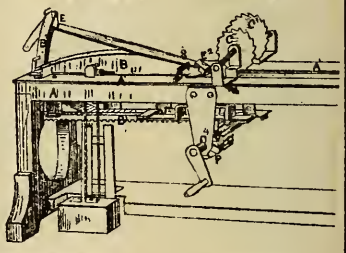
113,041, JAS. GAMBLE. MECHANICAL TELEGRAPH-INSTRUMENTS.



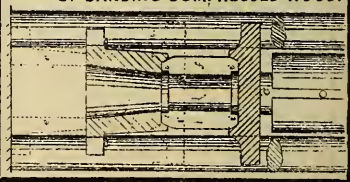
113,042, WM. GARDNER. SCROLL-SAWS.



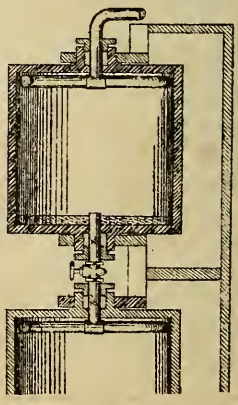
113,043, ROBERT W. GEORGE.
STAVE-SAWING MACHINES.



113,044, CHAS. B. GILMAN. METHODS OF BANDING COMPRESSED WOOD.



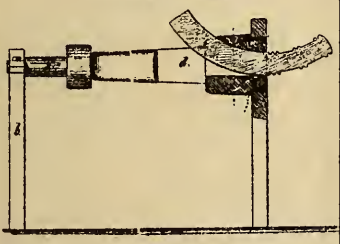
113,045
SAM. D. GILSON.
MANUFACTURE OF SALT FROM BRINES.



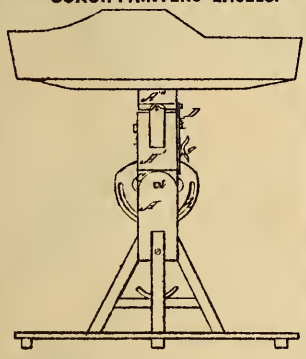
113,046, DANIEL A. HALL.
DAVID GARRISON.
CONSTRUCTION OF PIER-GLASS FRAMES AND CORNICES.

113,047, HORATIO N. HARBACH.
THEO. J. HARBACH.
CONFECTIONERY OR COCOANUT-CANDY.

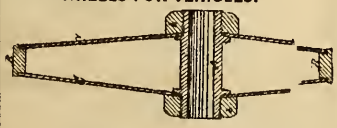
113,048, PIERRE J. HARDY.
TURNING-LATHES.



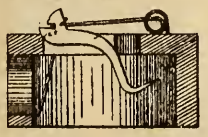
113,049, D. R. HARRIS.
COACH-PAINTERS' EASELS.

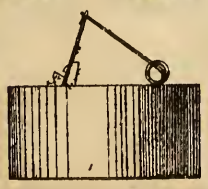


113,050, JAMES HARRIS.
WHEELS FOR VEHICLES.

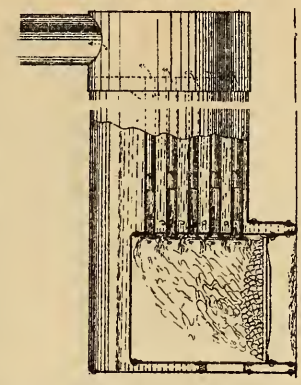


113,051, HUBERT O. HART.
MOUSE-TRAPS.

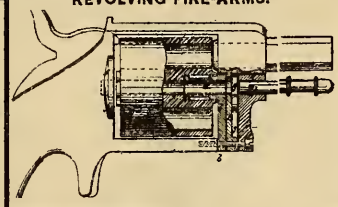




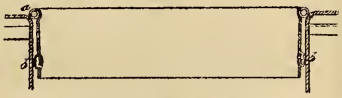
113,052, JAS. M. HICKS.
TUBULAR STEAM-GENERATORS.



113,053, SAMUEL S. HOPKINS.
REVOLVING FIRE-ARMS.

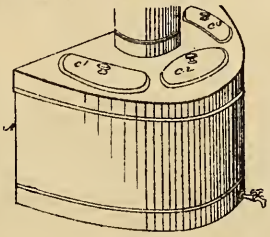


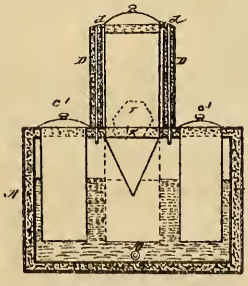
113,054, HENRY A. HOUSE.
VENTILATORS FOR HATS.



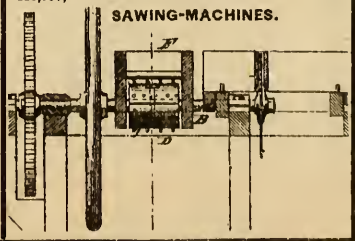
113,055 SUSPENDED

113,056, ANTHONY ISKE.
REFRIGERATORS AND WATER-COOLER

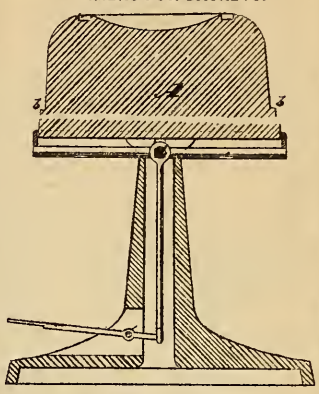




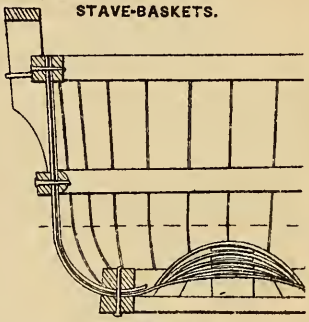
113,057, PIERSON JACOBUS.
SAWING-MACHINES.

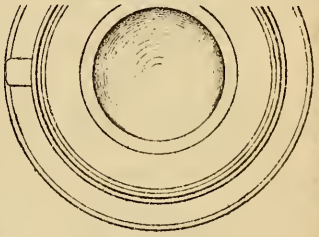


113,058, HORACE C. JONES.
FORMERS FOR BASKETS.

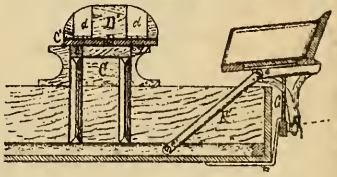


113,059, HORACE C. JONES.
STAVE-BASKETS.

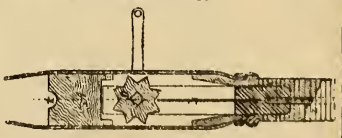




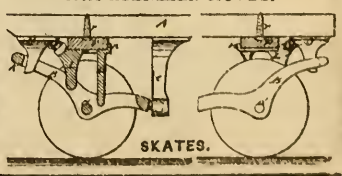
113,060, RICHD. E. JONES.
ADJUSTABLE SEATS FOR VEHICLES.



113,061, CHARLES KAST.
POLICE-BATONS.



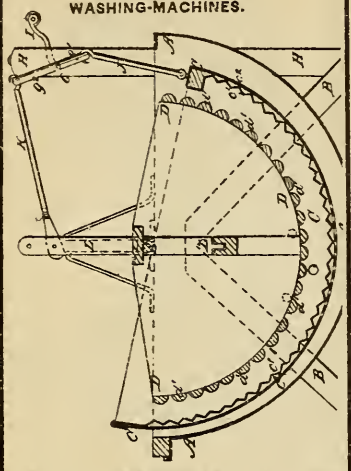
113,062, DAVID KERR.
ASA EBENEZER HOVEY.



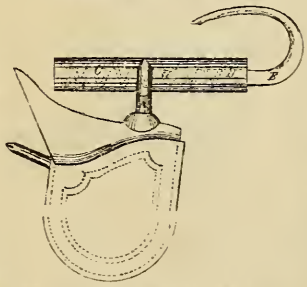
SKATES.

113,063, ALEXANDER KIRKWOOD.
MEAT-BISCUITS.

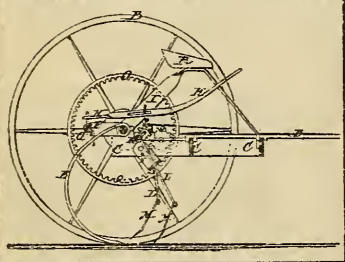
113,084. EDWIN KNOCK.
WASHING-MACHINES.



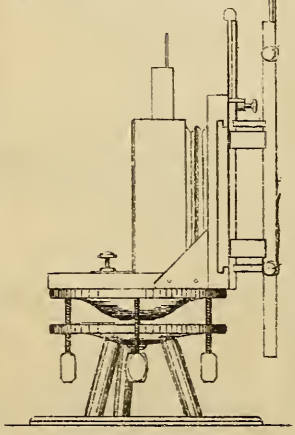
113,065. ALEXANDER LADD.
CHECK-REIN HOOKS.



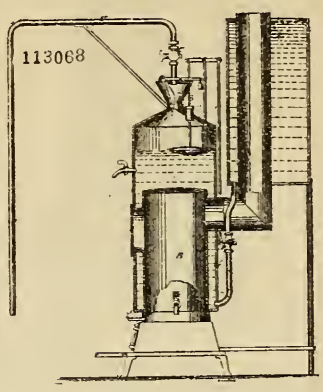
113,066. CHARLES LA DOW.
COMBINED HAY-RAKES AND TEDDERS.



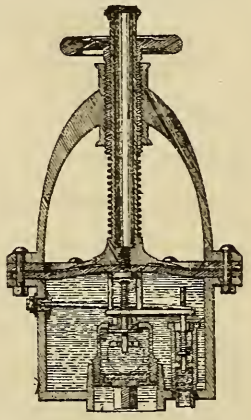
113,067. W. A. LEGGO.
PHOTOGRAPHIC CAMERAS.



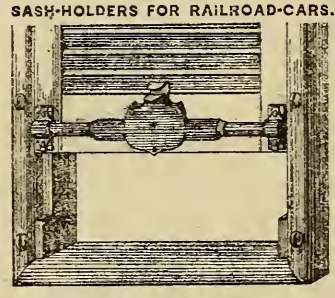
113,063. OTTO LEHMANN.
STEAMING APPARATUS.



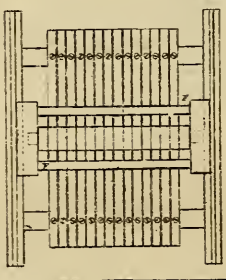
113,069. NATHANIEL C. LOCKE. STEAM AND WATER-PRESSURE REGULATORS.



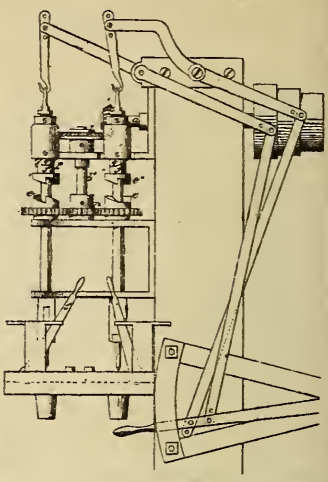
113,070. ADAM LOEFFELHOLZ.
ANTON PRIER.
SASH-HOLDERS FOR RAILROAD-CARS.



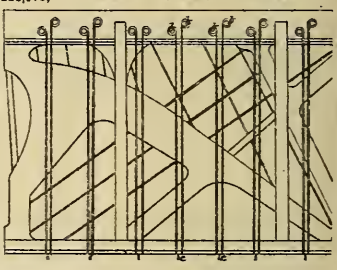
113,071. GEORGE W. MANTON.
MACHINES FOR CUTTTING VENEERING INTO STRIPS.



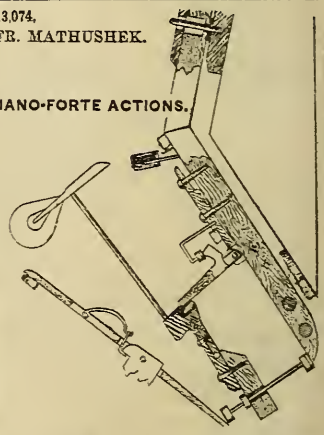
113,072. HENRY MARTIN.
MACHINES FOR THREADING BOLTS.



113,073. FR. MATHUSHEK. PIANOS.

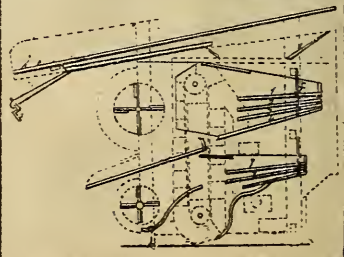


113,074.
FR. MATHUSHEK.
PIANO-FORTE ACTIONS.

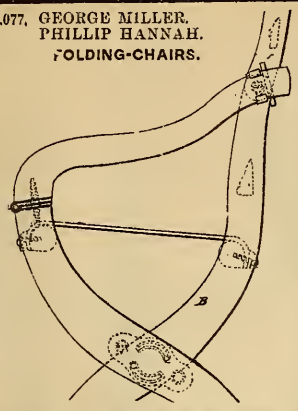


113,075 EDGAR McCONNELL.
CHISELS FOR MORTISING-MACHINES.

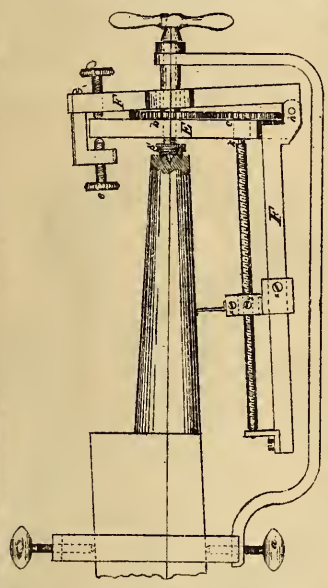
113,076. CURTIS MILLER.
SEPARATORS FOR THRASHING-MACHINES.



113,077, GEORGE MILLER.
PHILLIP HANNAH.
FOLDING-CHAIRS.



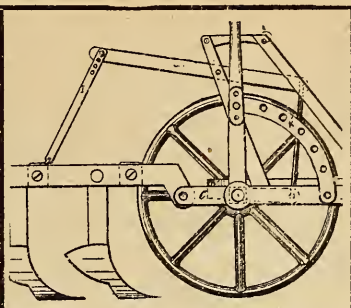
113,078, ARTHUR F. MOORE.
MACHINES FOR TURNING AXLES.



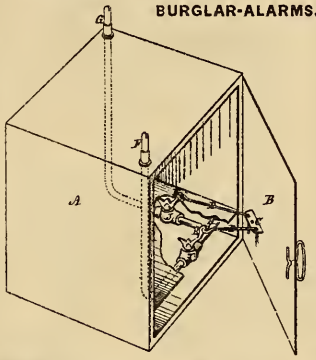
113,079, GEORGE MOTLEY.
MAKING FLOUR.

113,080, RICHARD M. MOYLE.
CATARRHAL DOUCHES.

113,081, JOHN MURRY.
GANG-PLOWS.

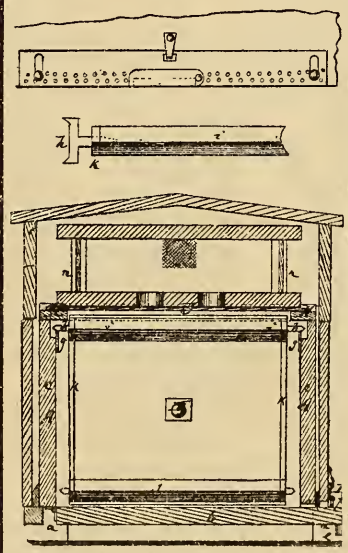


113,082, JOHN T. MYGATT.
JOHN DOWNING.
BURGLAR-ALARMS.

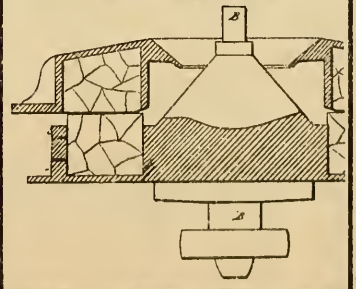


113,083, JOTHAM NEWTON.
COMPOSITION-FUELS.

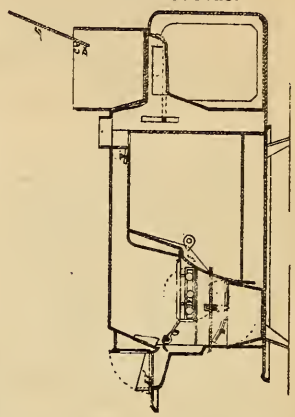
113,084, PHILIP NICOLLE. BEE-HIVES.



113,085, JACOB S. NISWANDER.
GRINDING-MILLS FOR ORES.

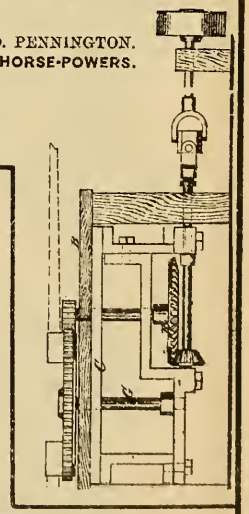


113,086, DANL. ELDON PARIS.
COOKING-STOVES.

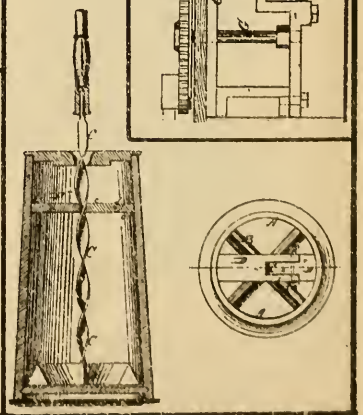


113,087, ROBERT H. PATON.
REVERSIBLE SETTEES.

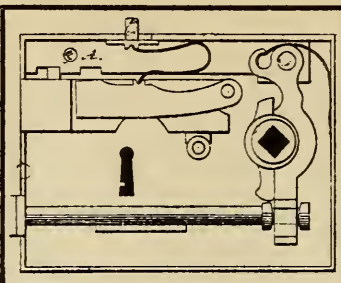
113,088,
THOMAS D. PENNINGTON.
HORSE-POWERS.



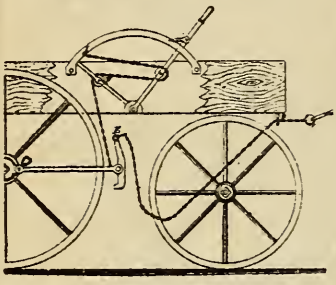
113,089,
GEORGE S.
PERFATER.
CHURNS.



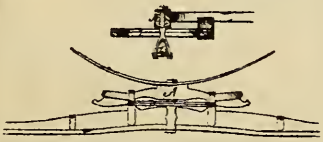
113,090. JOHN J. PRATT.
ELECTROPLATING LETTERS AND NUMBERS ON METALLIC PLATES FOR SIGNS.



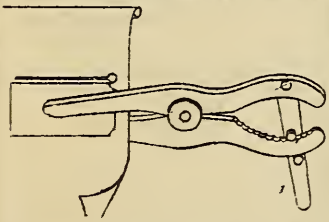
113,091, ABRAHAM QUINN.
SHOE-BRAKES FOR WAGONS.



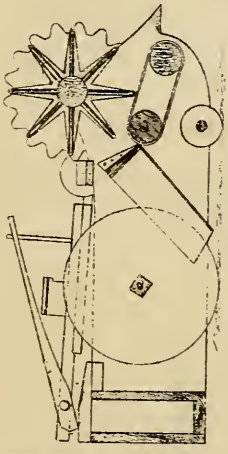
113,092, JOHN RANCEVAN.
RUNNING-GEARS FOR CARRIAGES.



113,093, LOYAL REDING.
BUTTON-HOLE CLAMPS AND GUIDES.



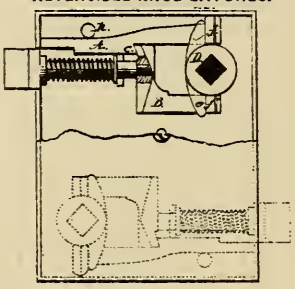
113,094, BENJAMIN M. REEVES.
MACHINES FOR PULLING FLAX.



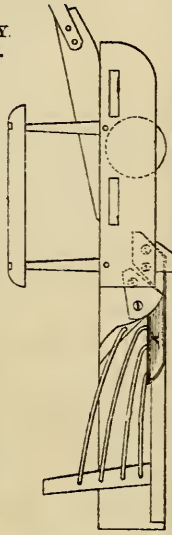
113,095, JOHN RICH.
CHUCKS FOR LATHES.

113,096, HENRY M. BITTER.
REVERSIBLE KNOB-LATCHES.

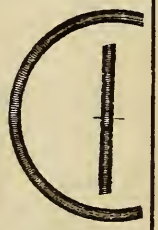
113,097, HENRY M. BITTER.
REVERSIBLE KNOB-LATCHES.



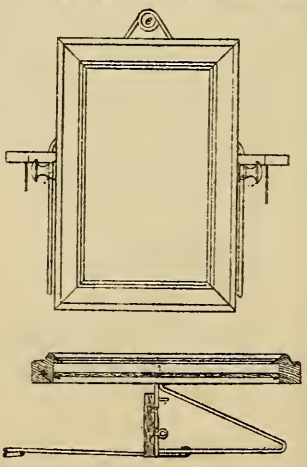
113,098.
HAMILTON RONEY.
PLOWS.



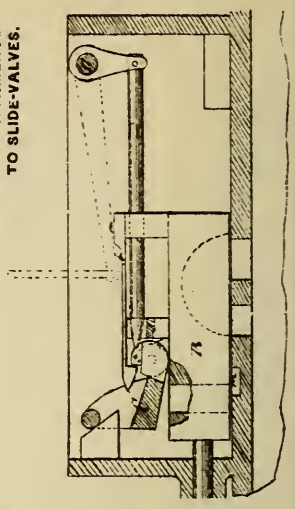
113,099.
ELIJAH H. RUSSELL.
SOLDERING SPIRAL BANDS.



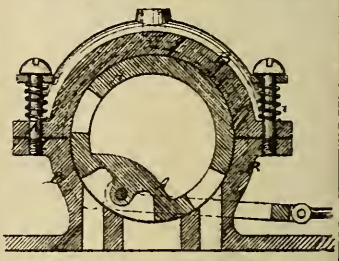
113,100, RANSOM T. SARGENT.
SUSPENSION TOILET-MIRRORS.



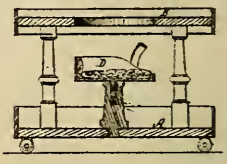
113,101,
THOMAS SAULT.
CUT-OFF ATTACHMENTS TO SLIDE-VALVES.



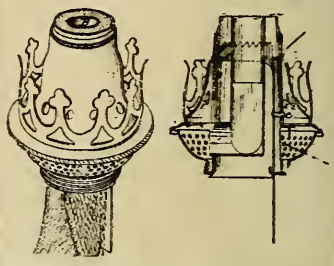
113,102, WILLIAM SIEFERT.
ANTI-FRICTION BALANCED-VALVES.



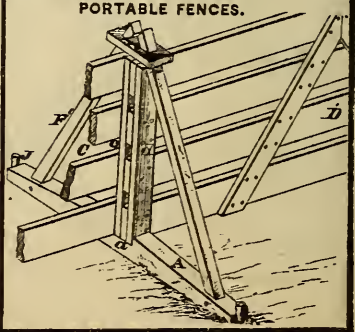
113,103, SAMUEL M. SIMONDS.
BABY-TENDERS.



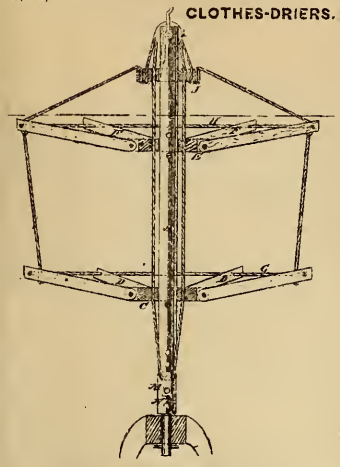
113,104. GEO. L. SMITH. LAMP-BURNER



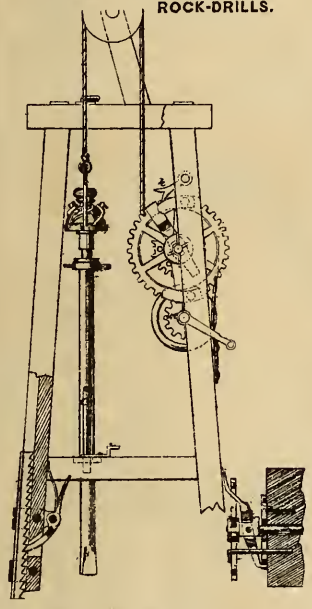
113,105, FRANK SPROUL.
PORTABLE FENCES.



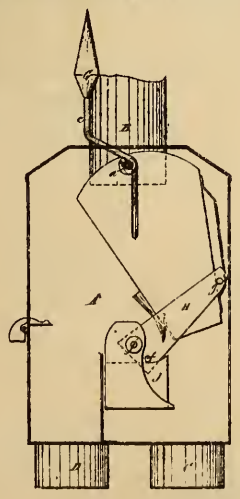
113,106, AUGUST STECHSCHULT.
CLOTHES-DRIERS.



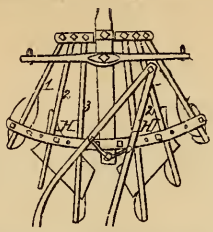
113,107. JAMES M. STEPHENSON.
ROCK-DRILLS.



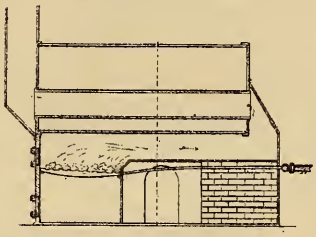
113,108. EDWARD STEWART.
AUTOMATIC WATER-SPOUT CUT-OFF



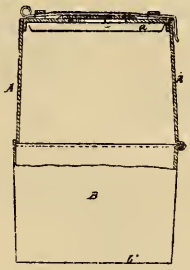
113,109. MICHAEL STOLL.
CULTIVATORS.



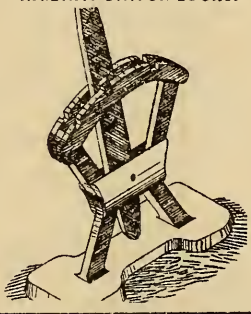
113,110, URIAH B. STRIBLING.
BOILER-FURNACES.



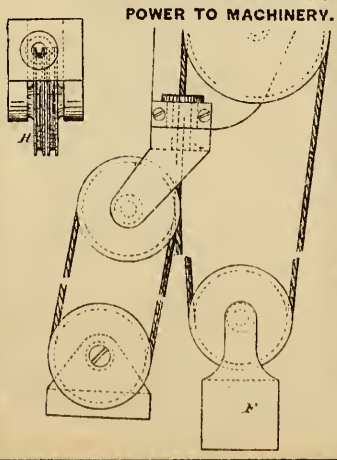
113,111, COLUMBUS F. STURGIS.
SHEET-METAL FRUIT-CANS.



113,112. ARCHIBALD THOMSON.
RAILWAY-SWITCH LOCKS.

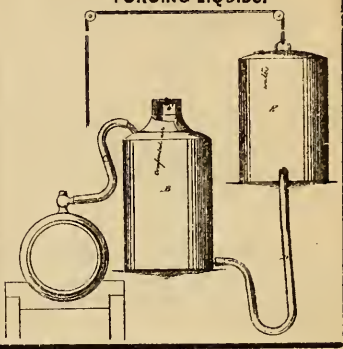


113,113, WM. H. THORNE.
APPARATUS FOR TRANSMITTING POWER TO MACHINERY.

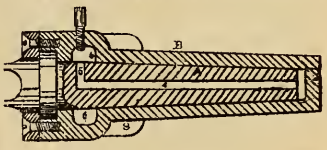


113,114, FRANCIS B. TORREY.
THE MANUFACTURE OF COMPOSITION-ROLLER BUSHINGS.

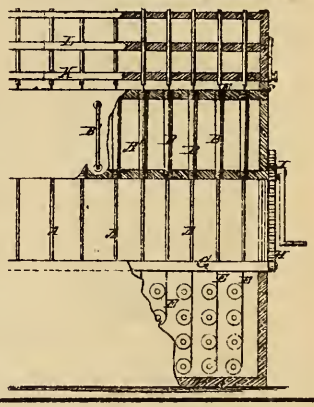
113,115, JACOB VAN NORMAN.
FORCING LIQUIDS.



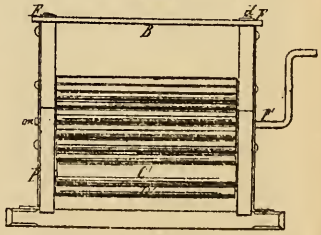
113,116, ERNEST VON JEINSEN.
JAMES MONROE McDONALD.
AXLES AND AXLE-BOXES FOR VEHICLES.



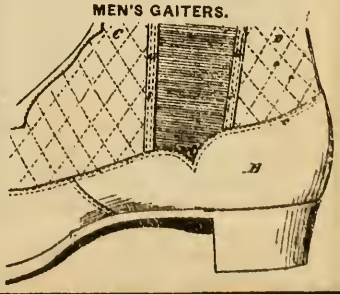
113,117, JOS. WALES.
CANDLE-MOLDING MACHINES.



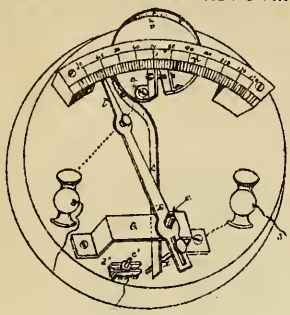
113,118, GEO. S. WALKER.
WASHING-MACHINES.



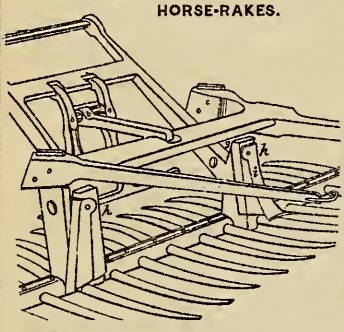
113,119. EDMUND R. WARE.
MEN'S GAITERS.



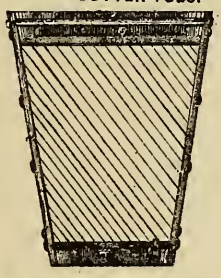
113,120, WILLIAM B. WATKINS. MEANS FOR DETECTING AND SIGNALING FIRES.



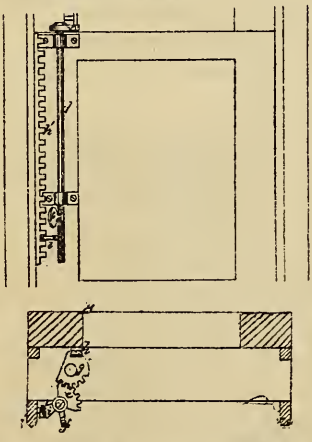
113,121, BENJAMIN WEBB. HORSE-RAKES.



113,122, CHARLES H. WHITE. BUTTER-TUBS.

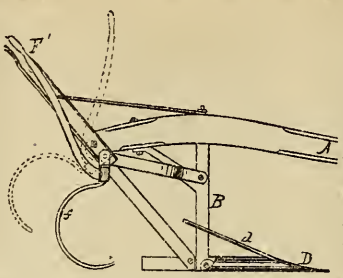


113,123, B. M. WHITING. SASH-HOLDERS.

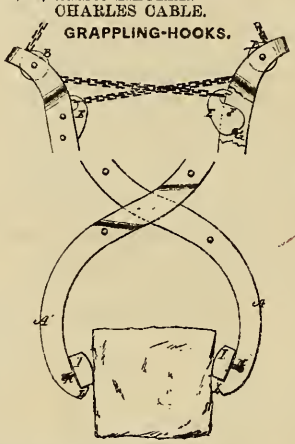


113,124, THOMAS ATWOOD WILLSON. TINTED GLASS FOR SPECTACLES.

113,125, JACOB A. WOOD. THOMAS WOOD. BEAN-HARVESTERS.

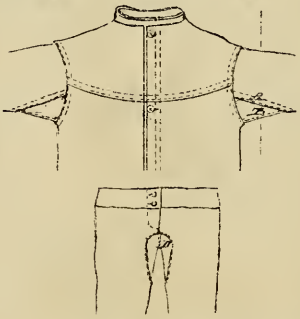


113,126, ELIAS ZIEGLER. CHARLES CABLE. GRAPPLING-HOOKS.

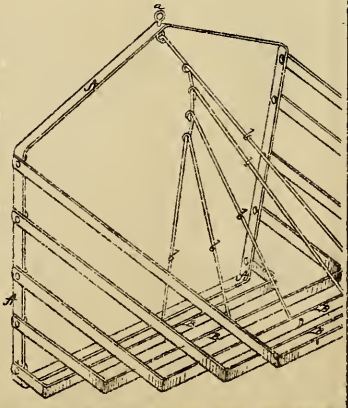


113,127, JOHN ZENGELER. COLORING AND STAINING MARBLE.

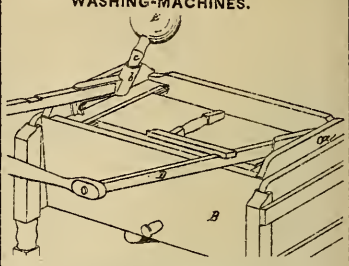
113,128, JOHN H. ANDRUS. SKIN UNDER-GARMENTS.



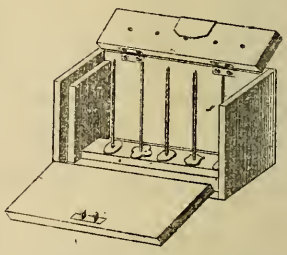
113,129, HENRY M. ANDRUS. JEHIEL H. CLEVELAND. CLOTHES-RACKS.



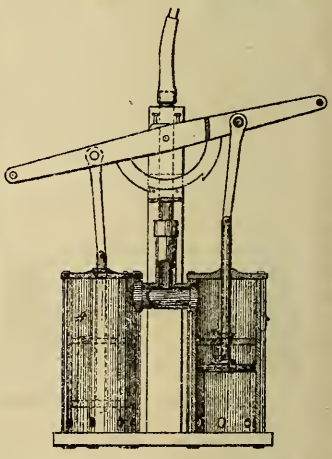
113,130, ALFRED M. BAILEY. WASHING-MACHINES.



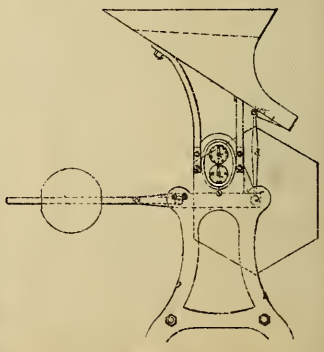
113,131, ANDREW A. BAKER. CHECK-HOLDERS.



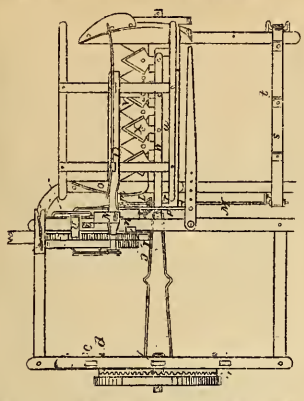
113,132, JEREMIAH BARNEY. DOUBLE-ACTING FORCE-PUMPS.



113,133, WILLIAM HY. BAXTER. GRAIN-WEIGHING REGISTERS.

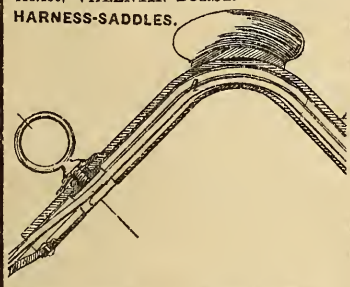


113,134, J. H. BEAM. HARVESTERS.



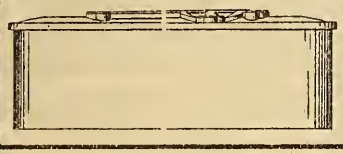
113,135. THOMAS T. BISHOP.
HENRY J. MERRET.
SEWING-MACHINE CASTERS.

113,136. VALENTIN BORST.
HARNESS-SADDLES.



113,137, J. A. BOSTWICK.
NOZZLES FOR OIL-CANS.

113,138, FRED. W. BROWN.
COMPOSITION BURIAL-CASES.



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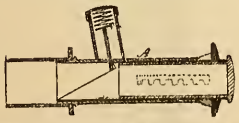
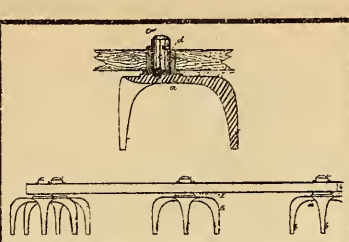
GEORGE A. CAPEWELL.
JOSEPH T. CAPEWELL.
SHOT-CHARGERS.



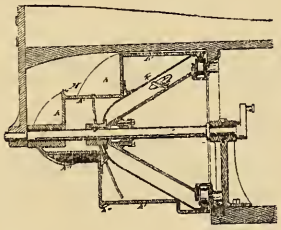
113,140, WM. A. CASWELL.
TOP-ROLLS FOR SPINNING.

113,141, JOHN F. CHASE.
ROTARY-HARROWS.

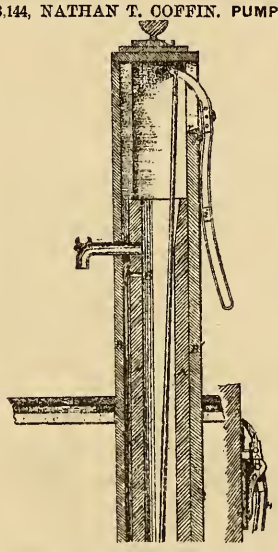


113,142, THOS. J. CLOSE. **STOVE-LEGS.**

113,143, GEORGE B. COCKS.
MARINE PROPELLERS.



113,144, NATHAN T. COFFIN. **PUMPS.**



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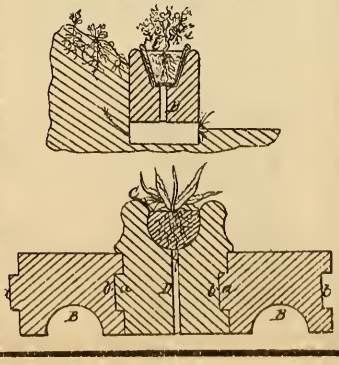
SEELYE RICHMOND.
GARDEN-BED BORDERS.



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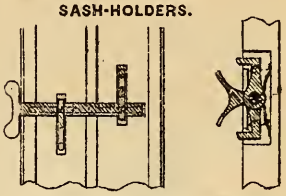
SASH-HOLDERS.



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ARTHUR BARBARIN.
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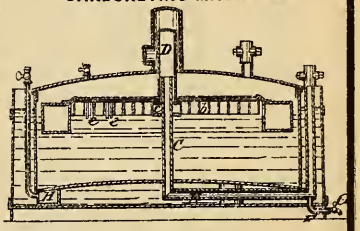
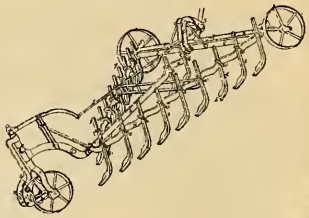
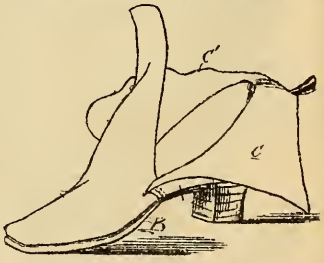


113,148, DAVID EDWARDS.
CULTIVATORS.



113,149, THOS. R. EVANS.
SHOES AND OVER-GAITERS.



113,150, ALVAN B. EWING.
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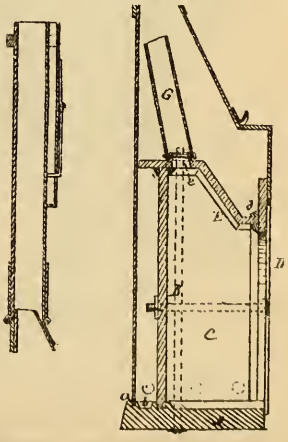
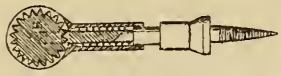
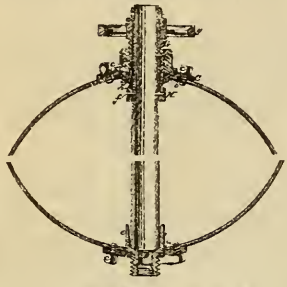


113,151, PHILIP FAY.
MEDICAL COMPOUNDS FOR CURE OF SCROFULA, LIVER COMPLAINT.

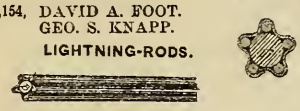
113,152, HENRY FELLOWS. SPURS.



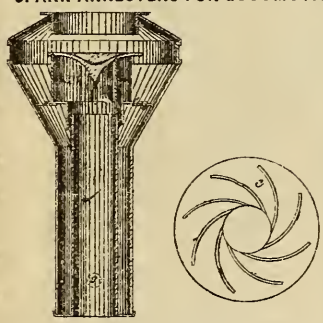
113,153. DANIEL FISHER.
WILLIAM CUMMING.
VALVES FOR OIL-TANKS.



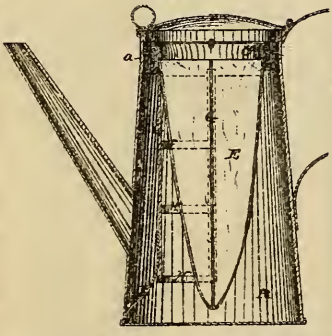
113,154, DAVID A. FOOT.
GEO. S. KNAPP.
LIGHTNING-RODS.



113,155. BENJAMIN P. FREEMAN.
PAT. PAYTON.
SPARK-ARRESTERS FOR LOCOMOTIVE



113,156, DANIEL S. FRENCH.
COFFEE-POTS.



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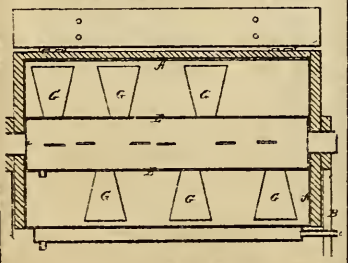
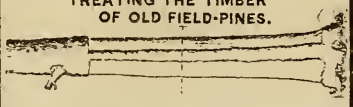
JONAS E. RAUCH.
FEATHER-RENOVATORS.



113,158, JAMES H. GATLING.
TREATING THE TIMBER
OF OLD FIELD-PINES.



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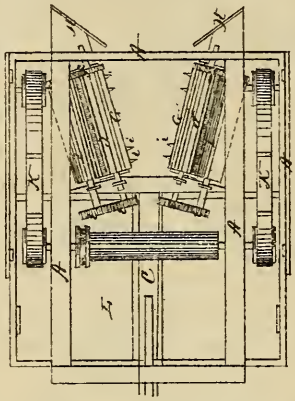
SINCLAIR D. G. NILES.
COTTON-PICKERS.



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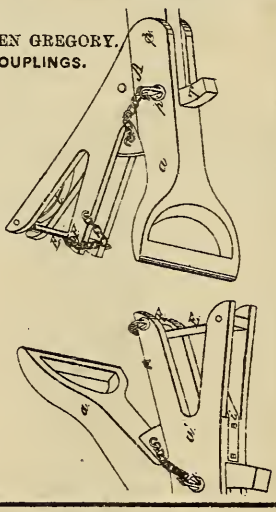
STEPHEN GREGORY.
CAR-COUPLINGS.



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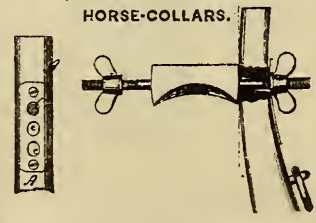
HORSE-COLLARS.



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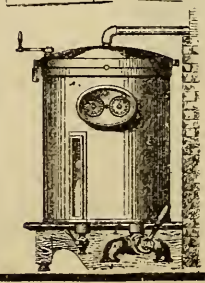
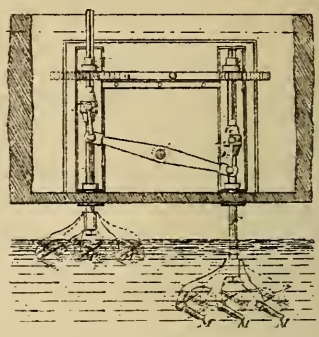
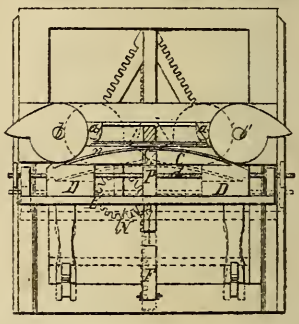
WATER-METERS.



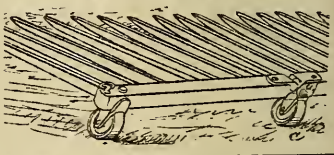
113,163. C. A. S. HARRIS.
PROPELLERS FOR VESSELS.



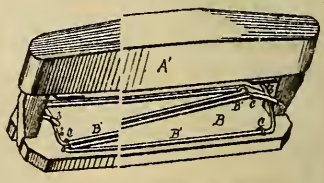
113,164. WM. HARTY. MACHINES FOR
FORMING CARRIAGE-SPRINGS.



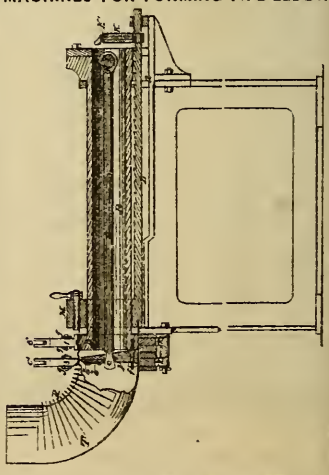
113,165. JOHN F. HENKLE.
HORSE HAY-RAKES.



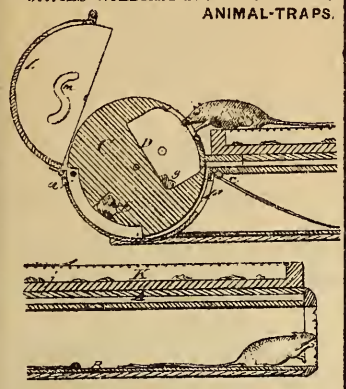
113,166, BENJAMIN HERSHEY.
TORSION-SPRINGS FOR CARS.



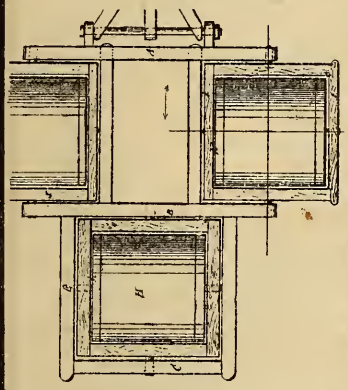
113,167. CHARLES HOELLER.
MACHINES FOR FORMING PIPE-ELBOW



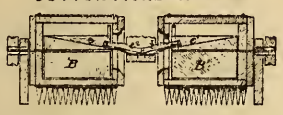
113,168. JAMES WILLIAM FISHBACK HOW. ANIMAL-TRAPS.



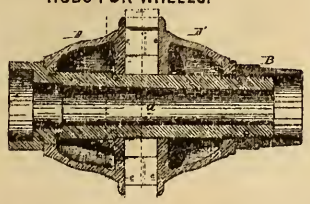
113,169. JOHN T. HUDNET. HOLLOWAY W. MATHEWS. LAND-ROLLERS.



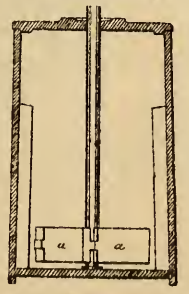
113,170. JNO. HUGHES. COTTON-PICKERS.



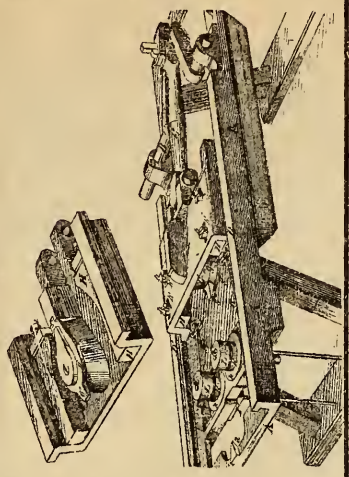
113,171. WM. C. JOHNSON. HUBS FOR WHEELS.



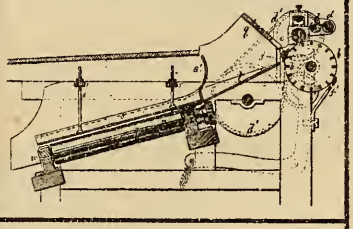
113,172. COLUMBUS JOHNSTON. CHURN-DASHERS.



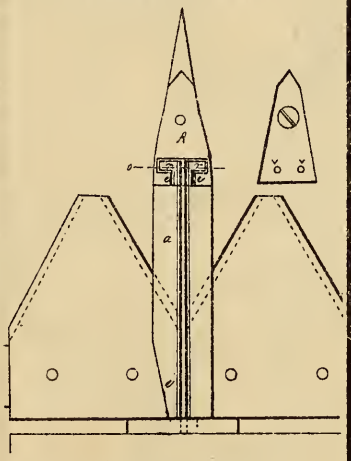
113,173. WILLIAM R. JUSTUS. HORSESHOE-MACHINES.



113,174. SILAS R. KENYON. CORN-PICKING AND HUSKING-MACHINE



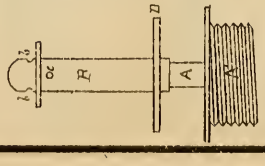
113,175. WM. G. KENYON. HARVESTER-CUTTERS.

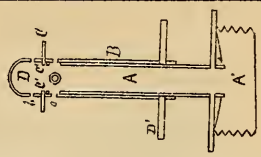


113,176. RUDOLPH C. KLEIN. COMPOSITIONS FOR LUBRICATING JOURNALS.

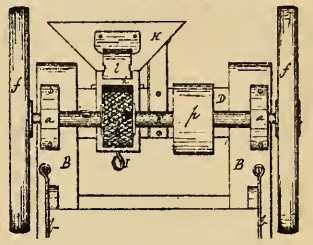
113,177. A. KOMP. FASTENINGS FOR NECK-TIES.

113,178. WM. H. LAWRENCE. VAPOR-BURNERS.

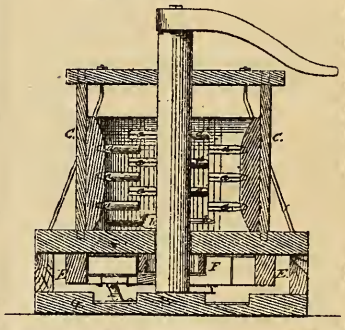




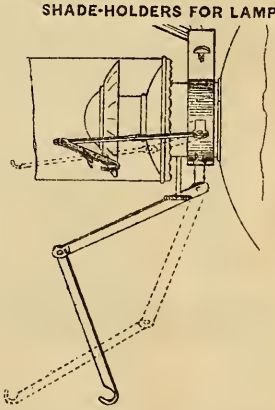
113,179. EDWIN D. LITTLE. EDGAR C. LITTLE. GRINDING-MILLS.



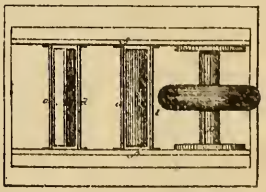
113,180. ZALMON LUDINGTON. PEAT-MACHINES.

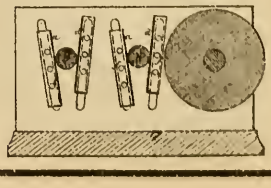


113,181. JAMES W. LYON. SHADE-HOLDERS FOR LAMPS.

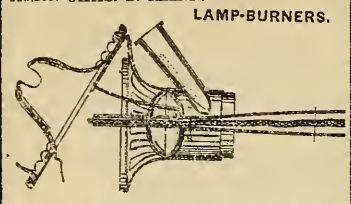


113,182. FRANCIS W. MALLETT. MACHINES FOR SCOURING NEEDLES.



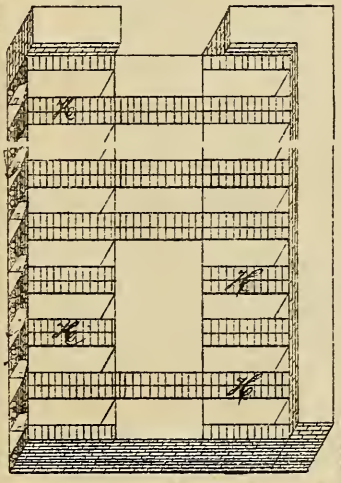


113,183. CHAS. B. MANN.
LAMP-BURNERS.

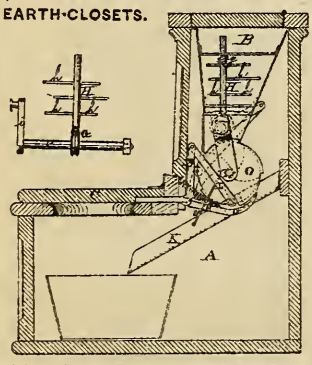


113,184. ROBERT J. MANN. SIEVES.

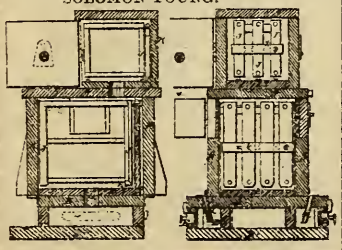
113,185, J. M. McCARTHY.
BRICK-KILNS.



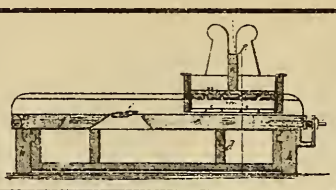
113,186. JAMES MEGRATTEN.
EARTH-CLOSETS.



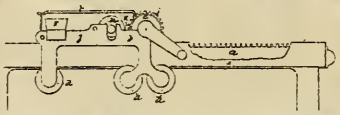
113,187, JOHN F. METHERD. BEE-HIVES.
SOLOMON YOUNG.



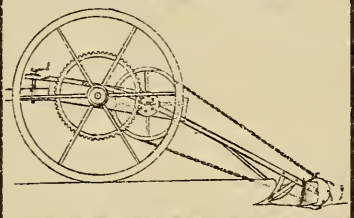
113,188, MONNET, FRANCISQUE.
VEGETABLE-CUTTERS.



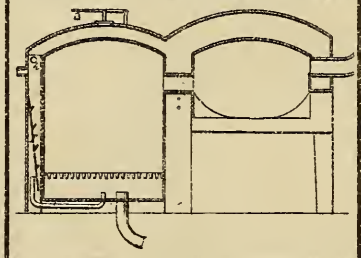
113,189, CHAS. E. MORRILL.
JOHN E. COFFIN.
GEO. F. HALL. MACHINES
FOR STRIPING AND CUTTING LEATHER.



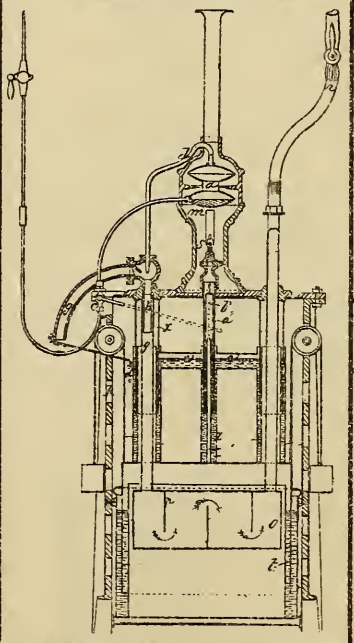
113,190, J. R. MORRIS.
ROTARY SUBSOIL-PLOWS.



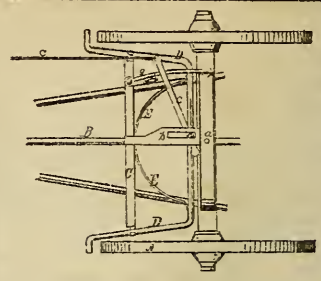
113,191, JOSEPH R. MORRIS.
FURNACES FOR PRODUCING HYDROGEN
AND TREATING ORES.



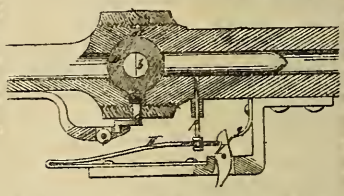
113,192. XR. MOUSSARD. PRODUCING
GASES FROM HYDROCARBONS.



113,193. ISAAC LAMBORN MYERS.
BUGGY-BRAKES.



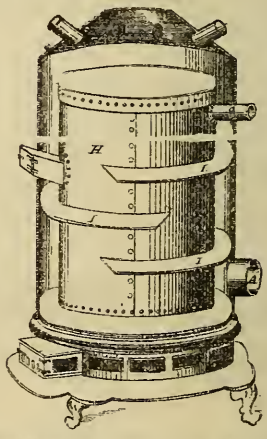
113,194. ROBERT NENNINGER.
BREECH-LOADING FIRE-ARMS.



113,195, JOHN F. NETTLETON.
SKIRT-BOARDS.

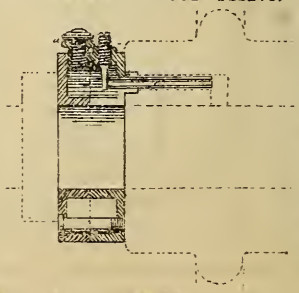
113,196, ERNST B. NEWMAN.
MOLDED SADDLE-TREES AND
COMPOSITIONS FOR THE SAME.

113,197, JAMES R. NICHOLS.
HOT-AIR FURNACES.

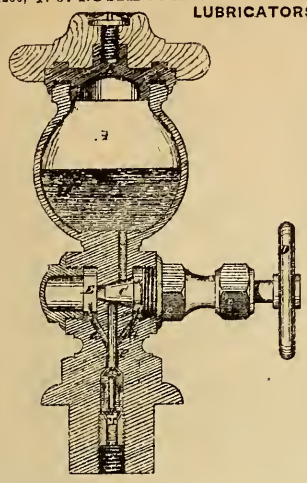


113,198, JOHN NORCROSS.
MEDICINES OR POWDERS FOR HORSES.

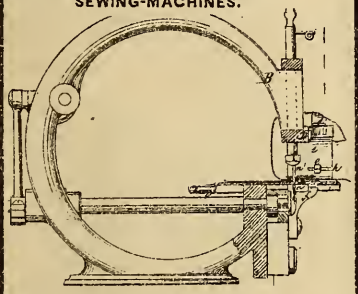
113,199, STEPHEN R. NORRIS.
OILERS FOR LOOSE-PULLEYS.



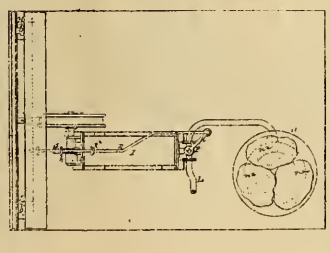
113,200, T. J. NOTTINGHAM.
LUBRICATORS.



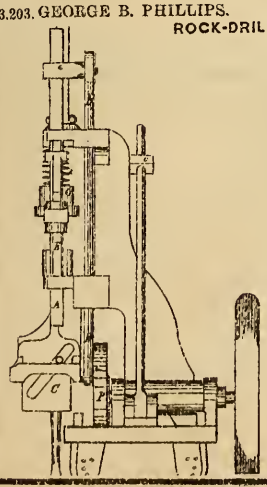
113,201, CHARLES O. PARMENTER.
SEWING-MACHINES.



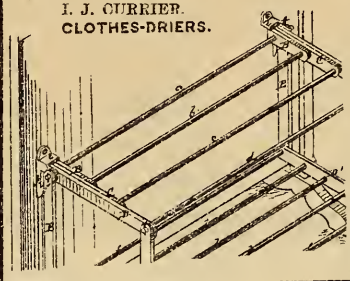
113,202. JOHN L. PEAKE. METHODS OF SCENE-SHIFTING FOR THEATRICAL AND ANALOGOUS PURPOSES.



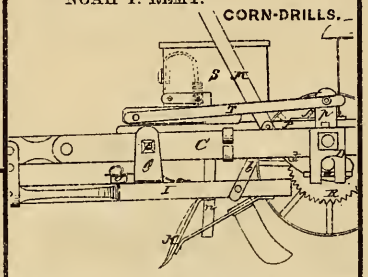
113,203. GEORGE B. PHILLIPS.
ROCK-DRILLS.



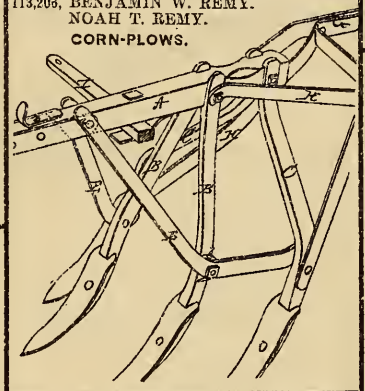
113,204 E. N. PORTER.
I. J. CURRIER.
CLOTHES-DRIERS.



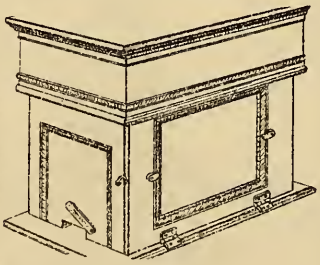
113,205, BENJAMIN W. REMY.
NOAH T. REMY.
CORN-DRILLS.



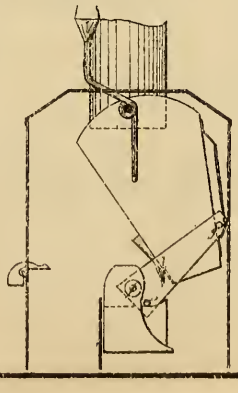
113,206, BENJAMIN W. REMY.
NOAH T. REMY.
CORN-PLOWS.



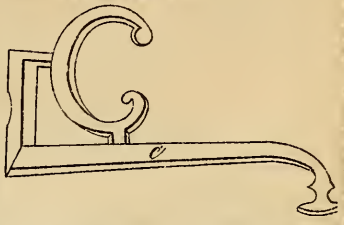
113,207, WM. REYNOLDS.
JOSEPH V. BROOKS.
BEE-HIVES.



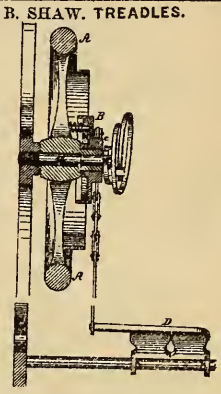
113,208,
EUGENE N. RIOTTE.
CHLORIDIZING SILVER ORES.



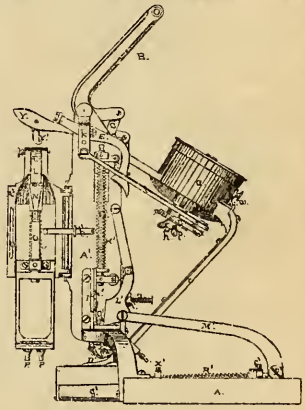
113,209. CHAS. ROE SCOTT.
WARDROBE OR HAT-HOOKS.



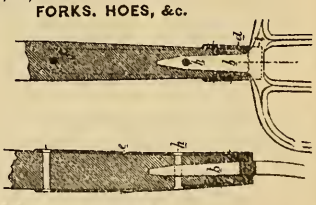
113,210, AI B. SHAW. TREADLES.



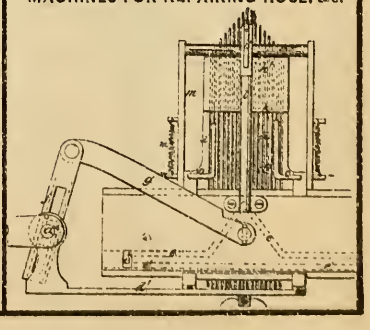
113,211, ELIJAH SHAW.
PUNCH AND EVELETING-MACHINES.



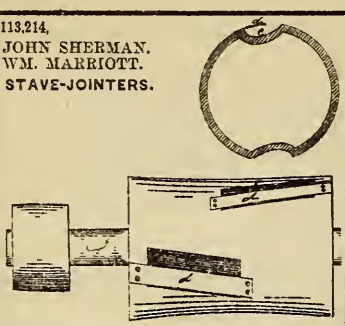
113,212, SAML. SHEBLE.
FORKS. HOES, &c.



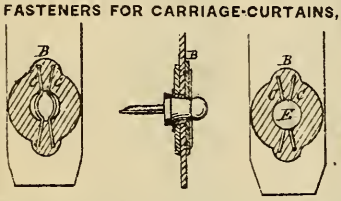
113,213. ALFRED SHEDLOCK.
MACHINES FOR REPAIRING HOSE, &c.



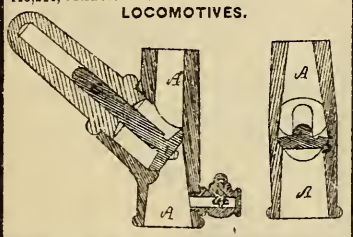
113,214, JOHN SHERMAN. WM. MARRIOTT. STAVE-JOINTERS.



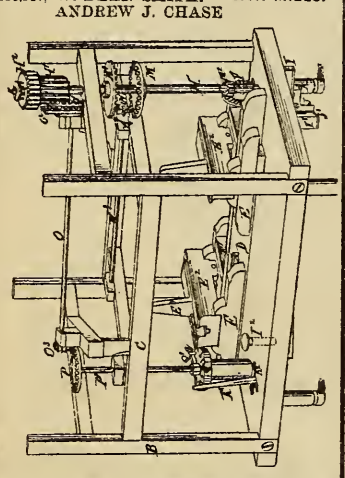
113,215, SAMUEL SHUTE. FASTENERS FOR CARRIAGE-CURTAINS.



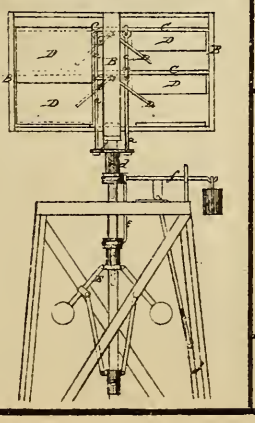
113,216, ALBERT S. SMITH. LOCOMOTIVES.



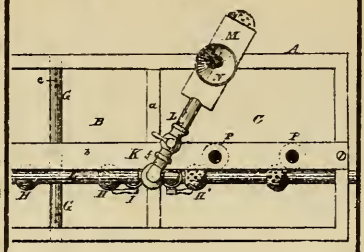
113,217, W. DEAN SMITH. ANDREW J. CHASE. SAW-MILLS.



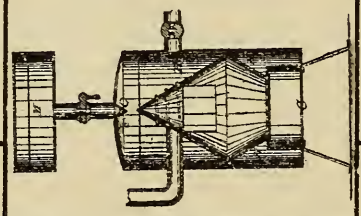
113,218, BRADLEY W. STANTON. WINDMILLS.



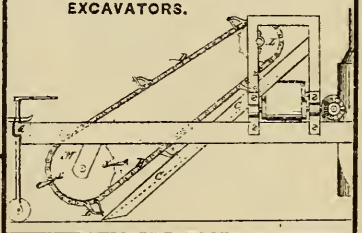
113,219, WILLIAM STARK. JOSEPH G. FISHER. GRAIN-DRIERS.



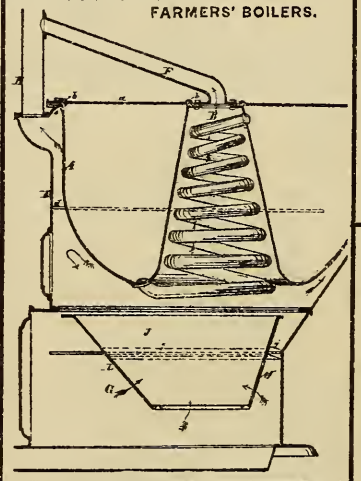
113,220, WILLIAM STARK. JOSEPH G. FISHER. HEATING-STOVES.



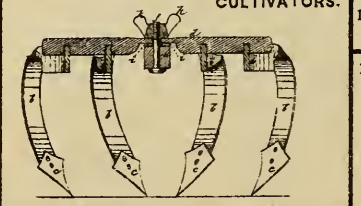
113,221, BARNA T. STOWELL. EXCAVATORS.



113,222, R. W. THICKINS. D. R. SPERRY. FARMERS' BOILERS.

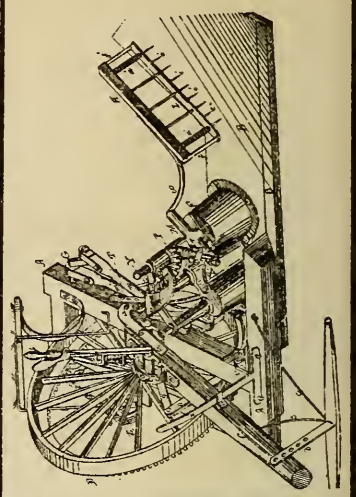


113,223, JACOB S. THOMAS. CULTIVATORS.

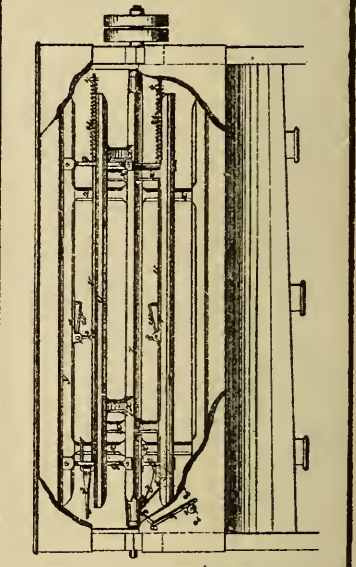


113,224, ANDREW VAN BIBBER. COMPOSITIONS FOR PRINTERS' INKING-ROLLERS.

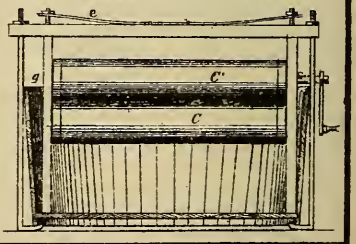
113,225, JOSEPH VAN DE WATER. HARVESTERS.



113,226, THOMAS M. WALKER. FLOUR-BOLTS.

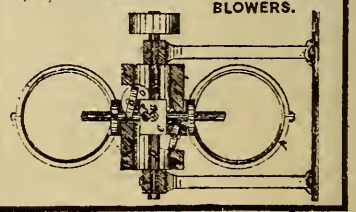


113,227, PAUL WEATHERBEE. WASHERS AND WRINGERS.



113,228, SAMUEL WEAVER. COMPOSITIONS FOR TREATING IRON.

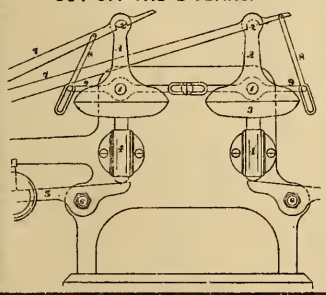
113,229, WILLIAM W. WEBB. BLOWERS.



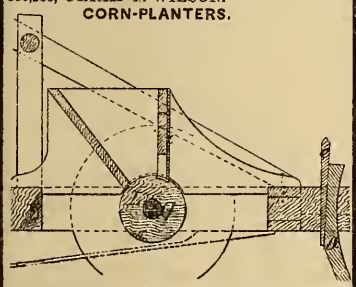
113,230, W. W. WHITAKER.
GLOVES.

113,231. LEWIS WHITEHEAD,
FOLDING-BEDS.

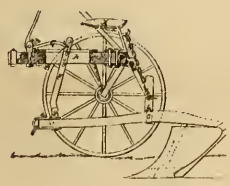
113,232. SETH H. WHITMORE.
CUT-OFF VALVE-GEARS.



113,233, URIAH T. WILSON.
CORN-PLANTERS.



113,234, JOHN WORRELL.
JAMES H. RYNERSON.
SULKY ATTACHMENTS FOR PLOWS.



113,235, JOHN WORRELL.
JAMES H. RYNERSON.
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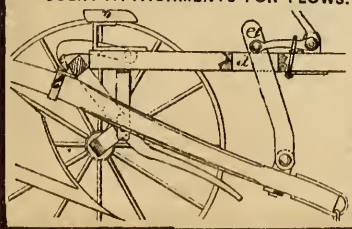

113,236 HENRY X. WRIGHT.
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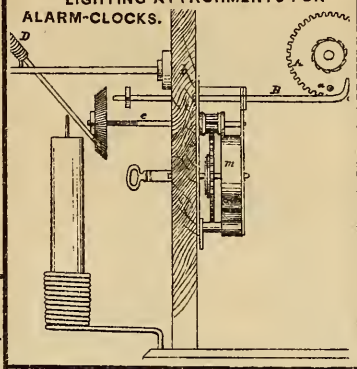

113,237. W. M. WRIGHT, M. D.
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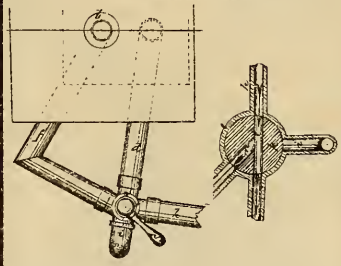

4,308. K. V. BARNEKOV.
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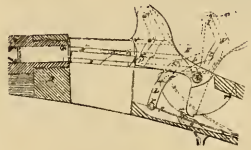

4,309, THEOPHILUS F. BERTRAND.
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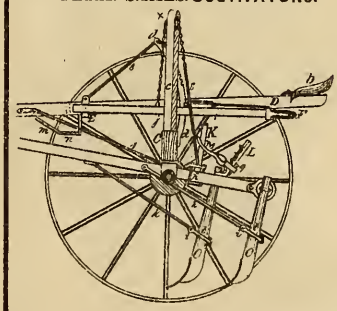

4,310, THOS. W. BROWN.
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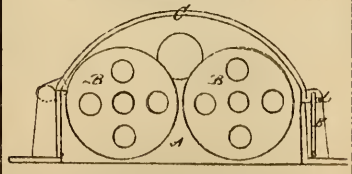

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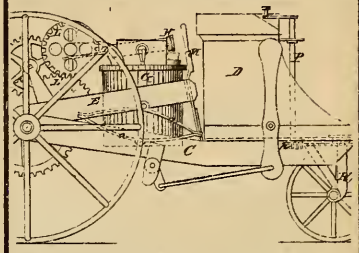

4,312, WM. C. JILLSON.
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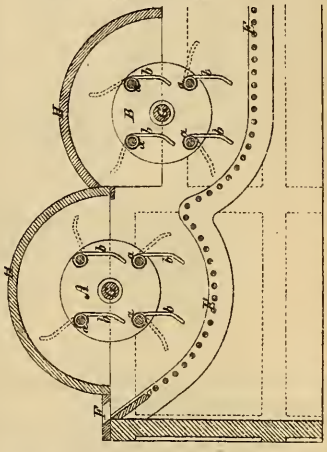

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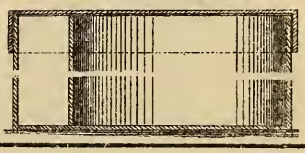

4,314. SOLOMON W. KIRK.
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4,315. OZIAL A. HOWE.
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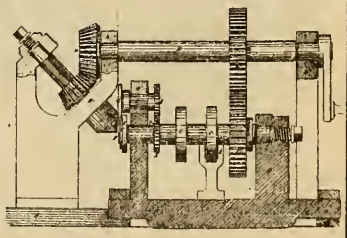
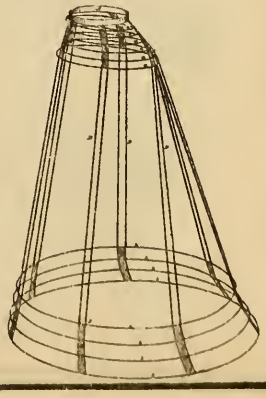


4,316, WM. H. TOWERS. HOOP-SKIRTS.



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113,238. ELBRIDGE G. ALDEN.
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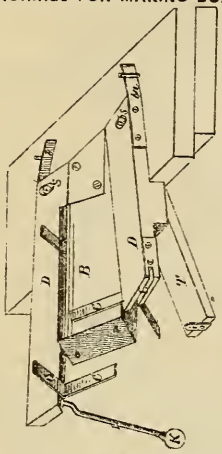

113,239. IGNAZIO ALLEGRETTI.
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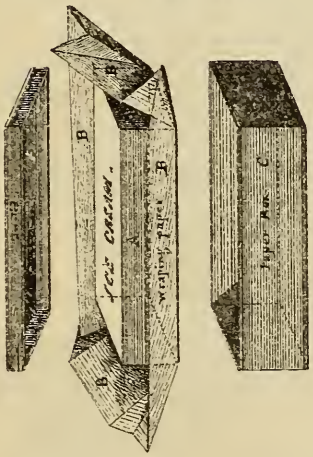

113,240. GEO. L. ANDERS.
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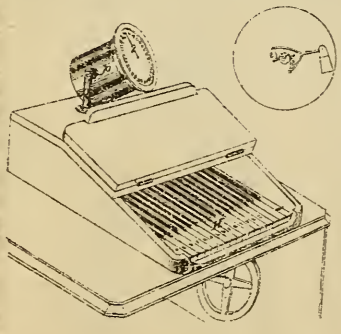

113,241. JOHN ASHCROFT.
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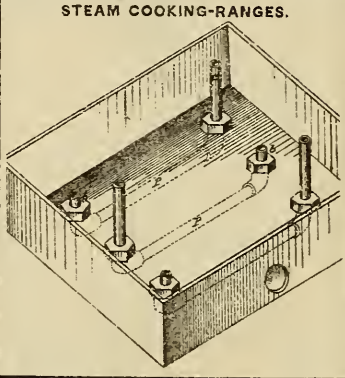

113,242. S. WM. BABBITT.
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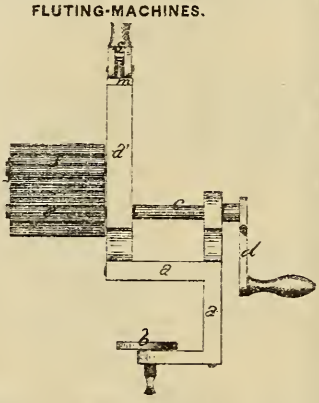
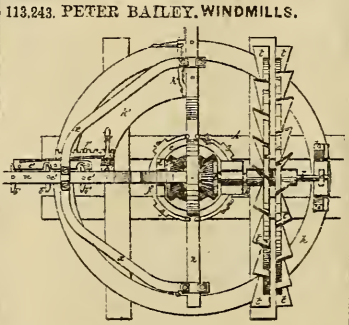


113,243. PETER BAILEY. WINDMILLS.



113,244. C. L. W. BAKER.
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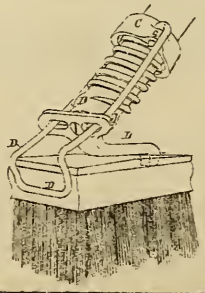

113,245. PETER BAKER.
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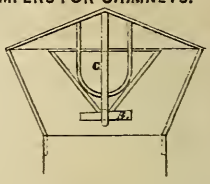

113,246. CHARLES J. BEASLEY.
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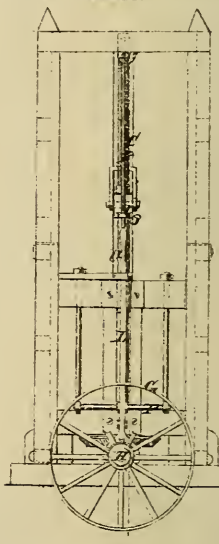

113,247. J. V. V. BOORAEM.
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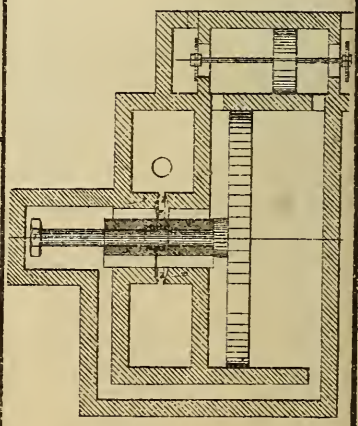

113,248. J. V. V. BOORAEM.
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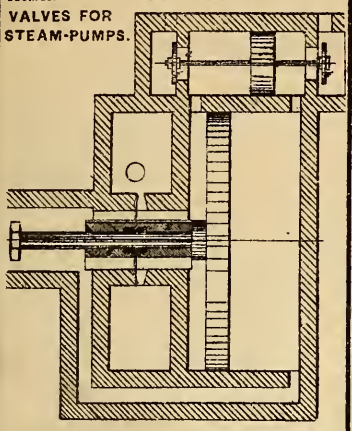

113,249, JOHN P. BROADMEADOW.
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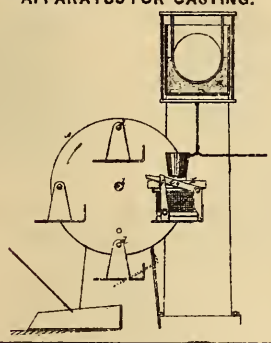

113,250, J. R. BUCHANAN.
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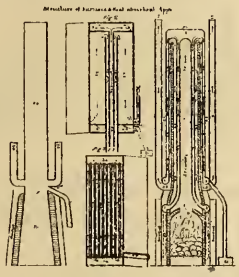

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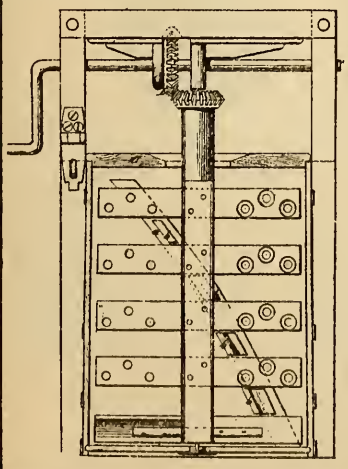

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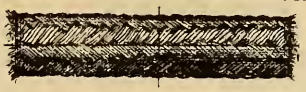

113,253, OTHO CANN.
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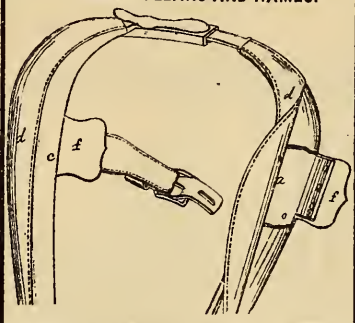

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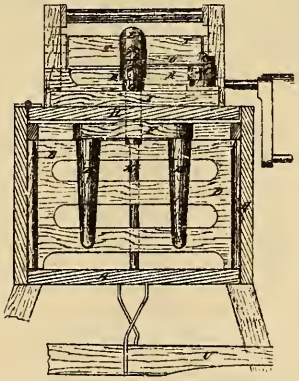

113,255, EBENEZER CATE.
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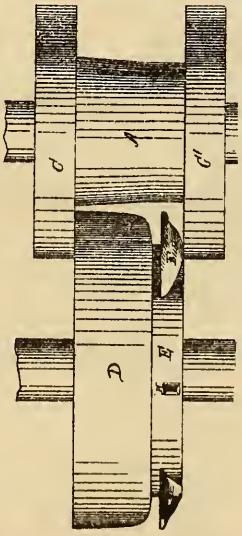

113,256 CYRUS CHAMBERS, JR.
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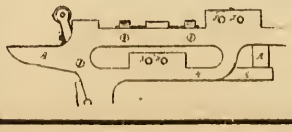

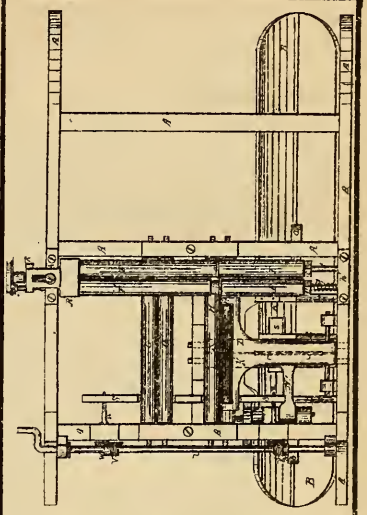

113,257. WILLIAM MENDHAM.
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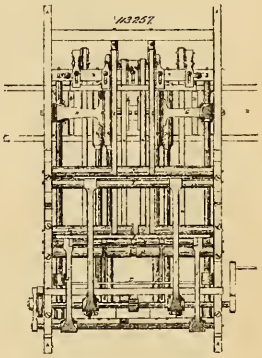

113,258, A. CHARLES.
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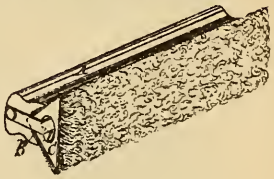

113,259, PETER E. CLARK,
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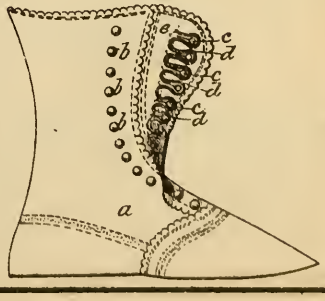

113,260, WM. A. CLARK.
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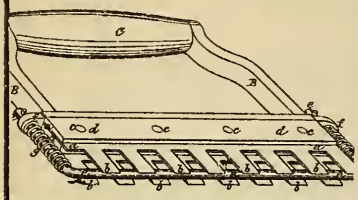

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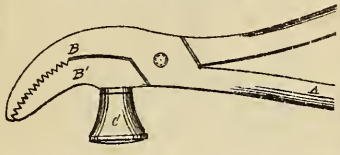

113,262, HENRY CLIMER.
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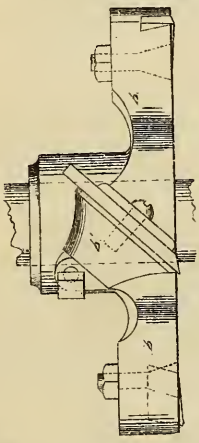

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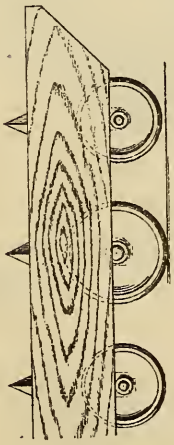

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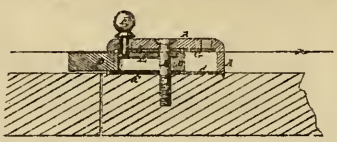

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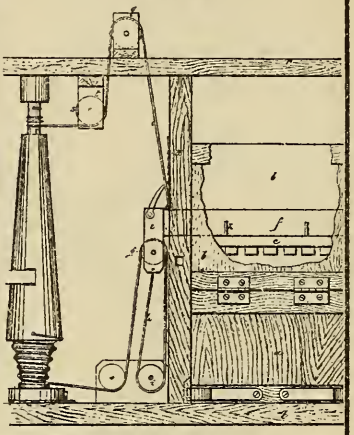

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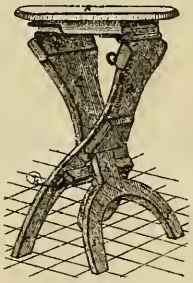

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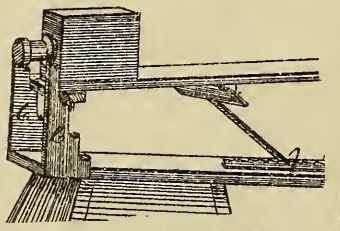

113,268, HARRY A. CROSSLEY.
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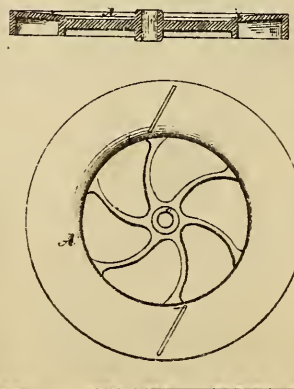

113,269, AARON M. DANIELS.
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113,270, JNO. N. DECKER.
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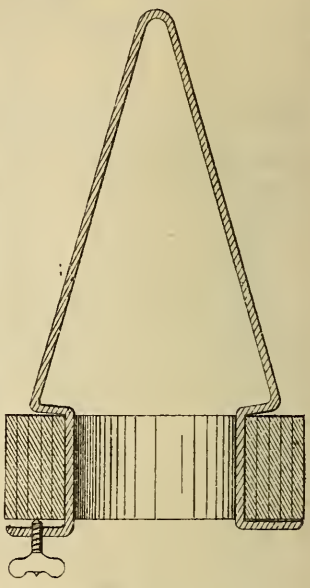

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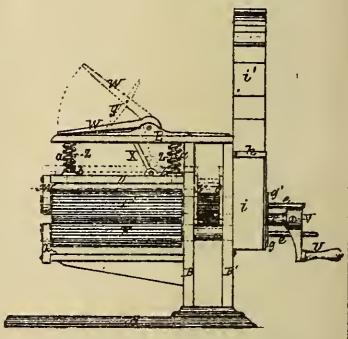

113,272, LEWIS DEITZ.
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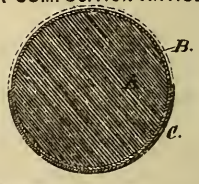
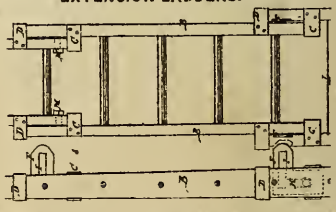
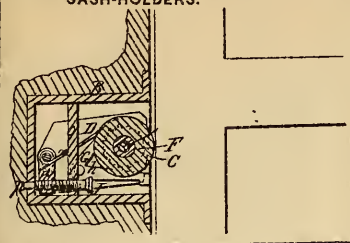


113,273, RENSELAER F. DELMOT.
EXTENSION-LADDERS.



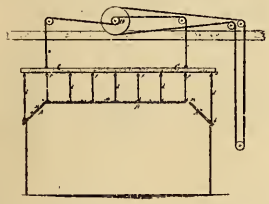
113,274, THEODORE DEMUTH.
FELTED FABRICS.

113,275, JOHN F. DINGEE.
SASH-HOLDERS.

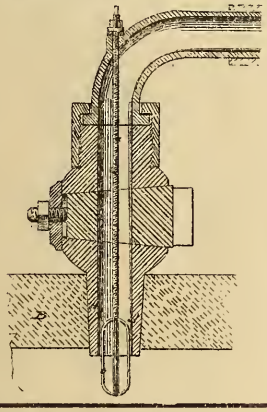


113,276, OTTO DUBOIS.
LITHOGRAPHIC-PRINTING.

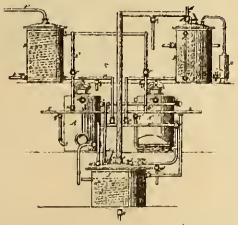
113,277, JOHN W. DUNNE.
CEILINGS FOR STAGES.



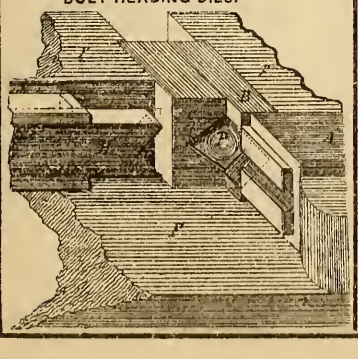
113,278, JOSIAH J. DUTCHER.
EEL-TRAPS FOR WATER-PIPES.



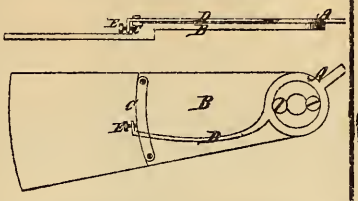
113,279, DR. HERMANN EISSFELDT.
CAMILLO THUMB.
PURIFYING ANIMAL CHARCOAL.



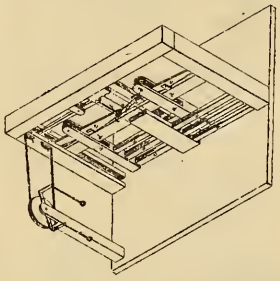
113,280, PHILIP ELEY.
BOLT-HEADING DIES.



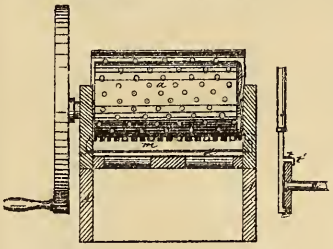
113,281, JULIUS EISON.
WATCH-REGULATORS.



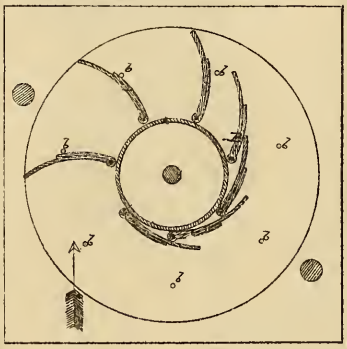
113,282, JAMES B. ERWIN. GATES.



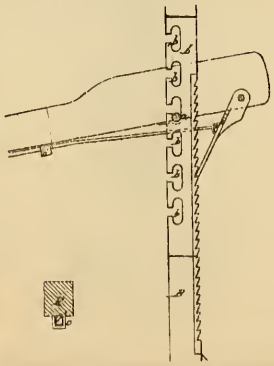
113,283, W. B. FARRAR.
CIDER AND WINE-MILLS.



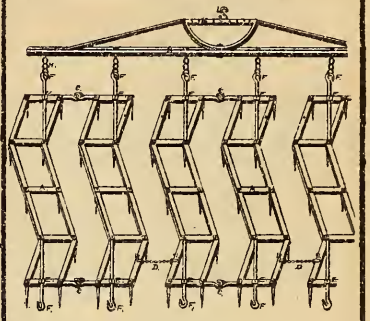
113,284, ANDREW FOLSOM.
WATER AND WIND-WHEELS.



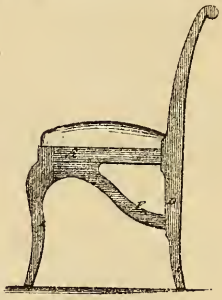
113,285, GEO. B. FOWLER
WAGON-JACKS.



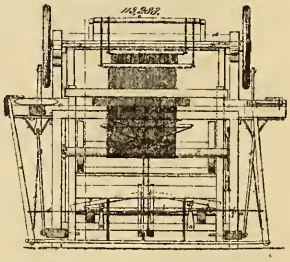
113,286, WILLIAM FOX. HARROWS.



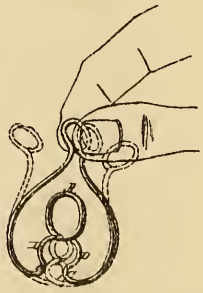
113,287, GEO. GARDNER. CHAIRS.



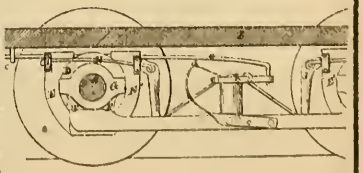
113,288, WILLIAM R. GIFFARD.
WILLIAM R. GIFFARD, JR.
JAMES A. GIFFARD.
LOOMS.



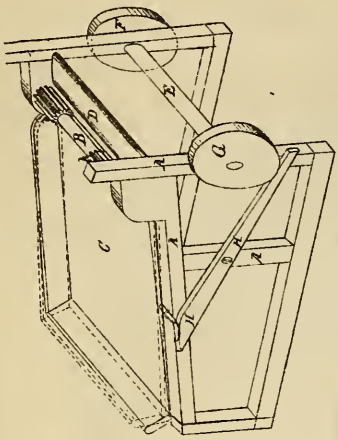
113,289, KEYES H. GOSS.
CLOTHES-PINS.

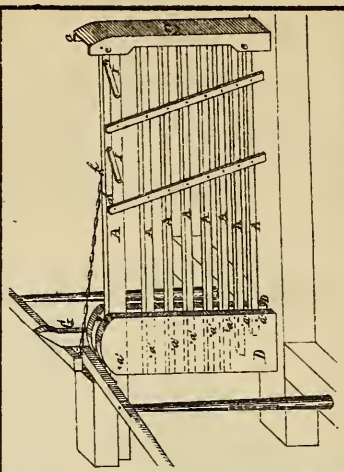


113,290, JOHN C. GOVE.
RAILROAD-CAR BRAKES.

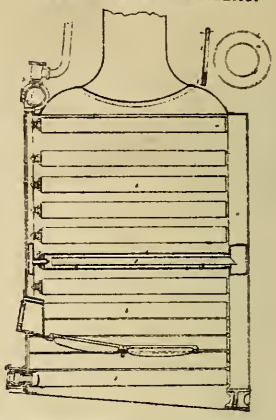


113,291, JOHN A. GRAVES.
PAPER-FEEDERS.

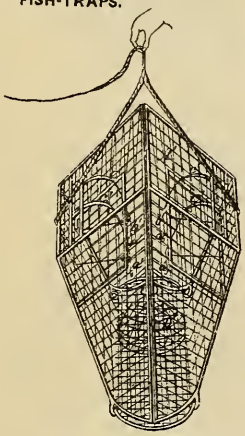




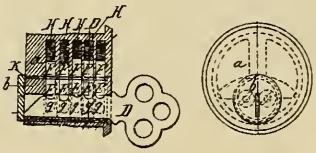
113,298, JAMES HOWARD.
EDWARD TENNEY BOUSFIELD.
TUBULAR STEAM-BOILERS.



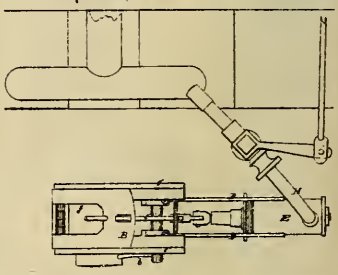
113,292, JOB E. HAMMOND.
FISH-TRAPS.



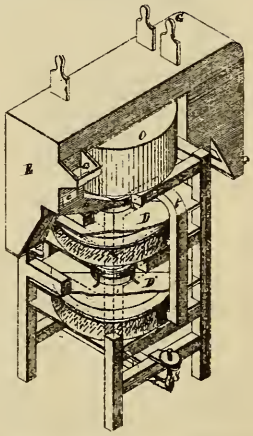
113,295, AUGUST HERMANN.
W. H. TAYLOR.
PIN-LOCKS.



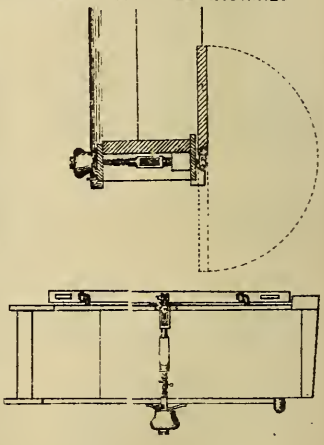
113,299, RALPH C. HUSE, JR.
AUTOMATIC APPARATUS FOR OPERATING THE VALVE OF THE EXHAUST-PIPE OF LOCOMOTIVES.



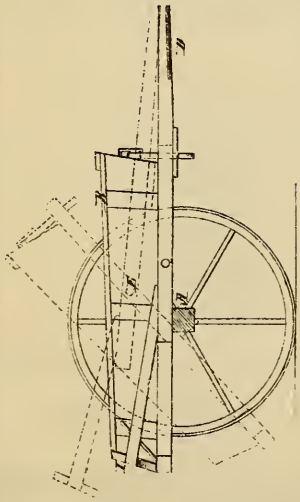
113,296, SAMUEL H. HINSDELL.
HENRY W. DRAKE.
CORNELIUS B. WAY.
GRAIN-SCOURERS AND SEPARATORS.



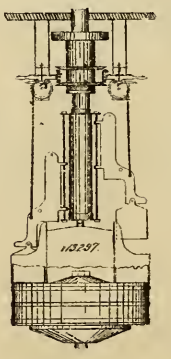
113,300, WM. HUTCHINSON.
BRICK AND TILE-MACHINES



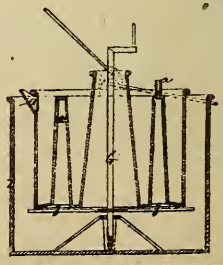
113,293 WM. HAND.
DUMPING-CARTS.



113,297, WILLIAM M. HOWLAND.
WOOD-PULP MACHINES.

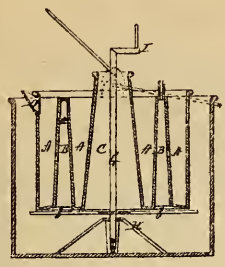


113,301, GEORGE JENNISEN.
MERRICK F. OTIS.
WINDOW-BLIND OPERATORS.

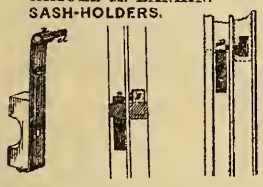


113,294, URIAH W. HARDY.
GATES.

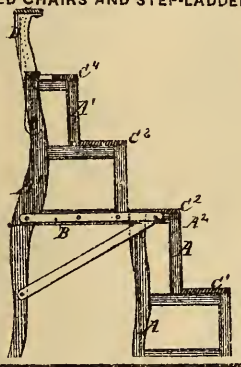
113,302. NELSON JOHNSON.
RANSOM E. JOHNSON.
MILK-COOLERS.



113,303, WM. G. JONES.
SAMUEL M. RANKIN.
SASH-HOLDERS.

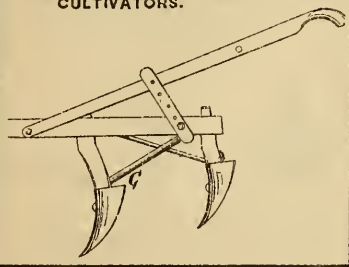


113,304, IB JORGENSON.
RASMUS OLSON.
COMBINED CHAIRS AND STEP-LADDERS.

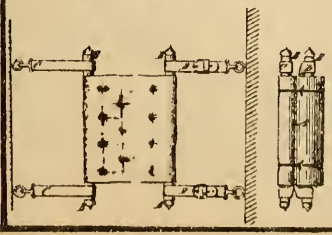


113,305, DANIEL J. KELLOGG.
FOUNTAIN PAINT-BRUSHES.

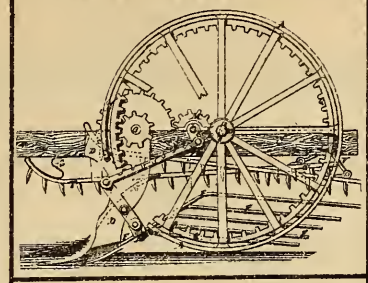
113,306, ALBERT H. KENNEDY.
CULTIVATORS.



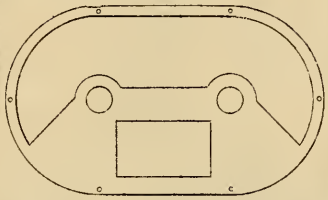
113,307, JULIUS KRISCH.
CHARLES THOENER.
ROLLING BEDS.



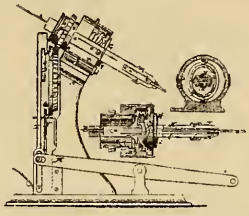
113,308, JOSEPH PRESTON LAFETRA.
POTATO-DIGGERS.



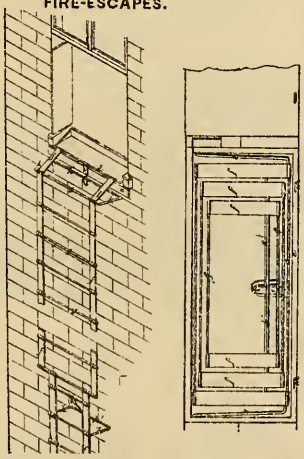
113,309, T. S. LA FRANCE.
ROTARY STEAM-ENGINES.



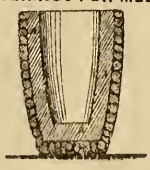
113,310, HENRY B. LANDERS.
FEEDERS FOR NAIL-MACHINES.



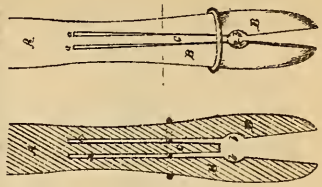
113,311, GEORGE LAYNOR.
HARRY HELMLING.
FIRE-ESCAPES.



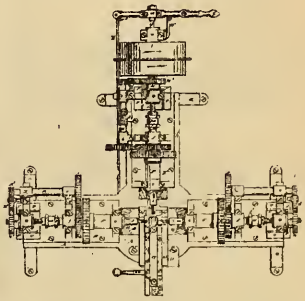
113,312, ALBERT C. LEWIS.
COVERINGS FOR MELTING-POTS.



113,313, ANDREW B. LIPSEY.
CLOTHES-PINS.



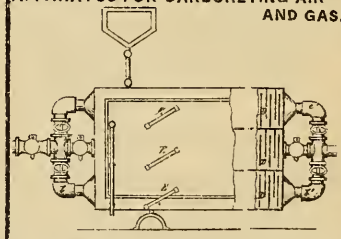
113,314, CHARLES B. LONG.
MACHINES FOR TAPPING GAS AND WATER-FITTINGS.



SUSPENDED.

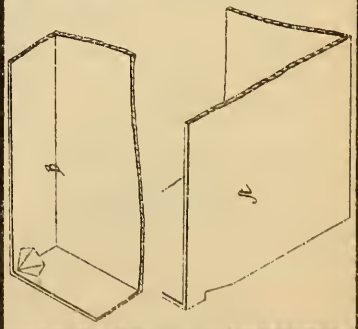
113,316, SAMUEL LOYD.
COMBINATION LOCKS.

113,317 FRANCIS H. LUTKEWITTE.
APPARATUS FOR CARBURETING AIR AND GAS.

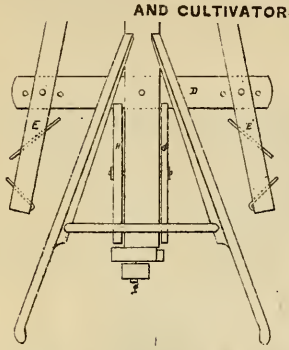


113,318, WILLIAM LYON.
SWIVEL-PINS FOR TETHERING ANIMALS.

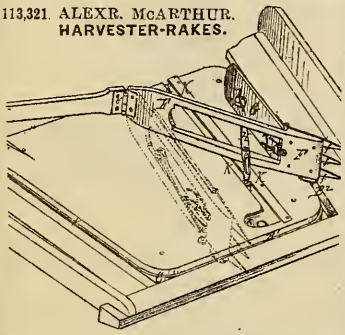
113,319, BERNARD J. MAGEE.
JAMES F. WALL.
PAPER BOXES.



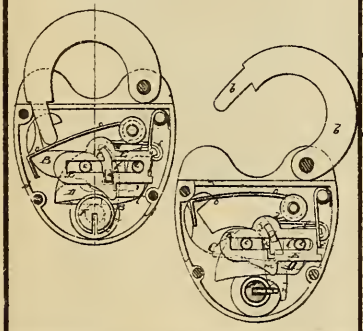
113,320, C. MAESH, 2ND.
COTTON-SCRAPERS, HILLERS. AND CULTIVATORS.



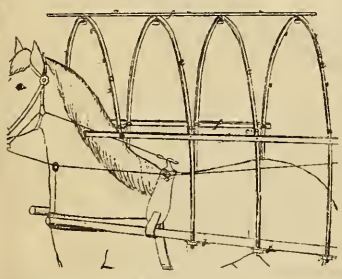
113,321. ALEXR. McARTHUR.
HARVESTER-RAKES.



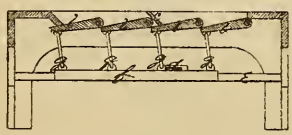
113,322, G. MERKEL. C. H. MEYER. PADLOCKS.



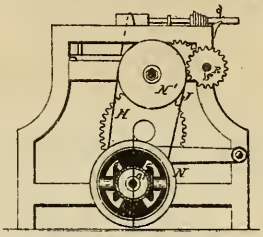
113,323 SIMON MOFFITT.
AWNINGS FOR ANIMALS.



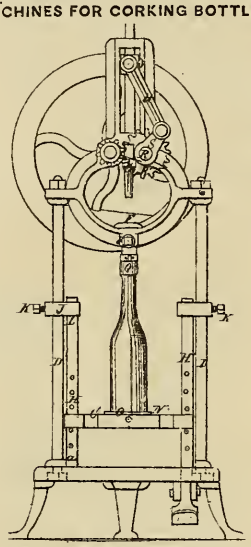
113,324, GEO. R. MOORE.
FURNACE-GRATES.



113,325, FRANKLIN H. MORRILL.
MACHINES FOR WINDING BOBBINS.

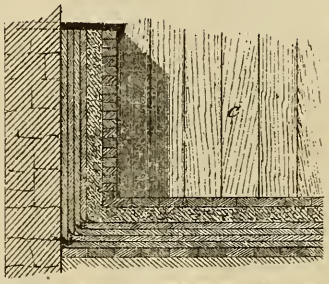


113,326, D. MUELLER.
MACHINES FOR CORKING BOTTLES.

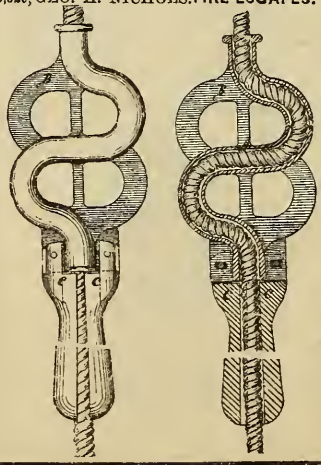


113,327, PETER H. MURRAY.
MODES OF PREPARING PAPER FOR PHOTOGRAPHIC PURPOSES.

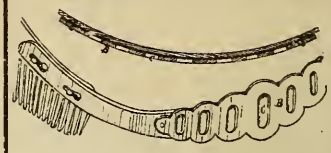
113,328, TOBIAS NEW.
WATER-PROOF CELLARS.



113,329, GEO. H. NICHOLS. FIRE-ESCAPES.

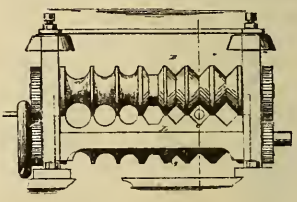


113,330, CHARLES HORACE NOYES.
COMBS.

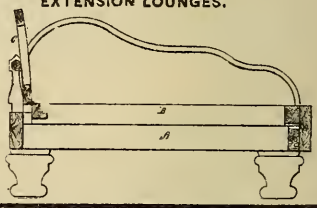


113,331, RICHARD O'NEIL.
ORNAMENTING THE SURFACE OF METALS BY ELECTRO-DEPOSITIONS FROM SOLUTIONS.

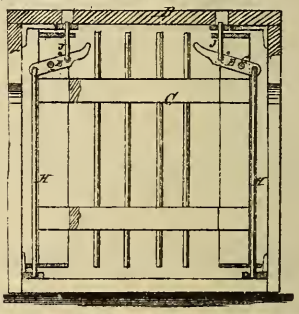
113,332, JONATHAN OSTRANDER.
MACHINES FOR ROLLING HOLLOW BARS FOR NUTS.



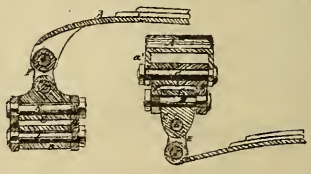
113,333. J. S. PAINE.
EXTENSION LOUNGES.



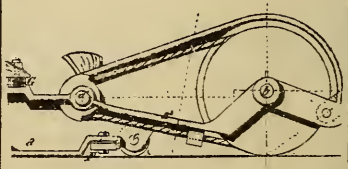
113,334. BENONI F. PALMER. GATES.



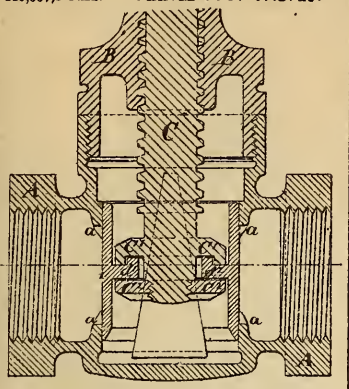
113,335, BENJAMIN T. PARSELS.
JOHN L. HEDGES.
PLATFORM-SPRING COUPLINGS.



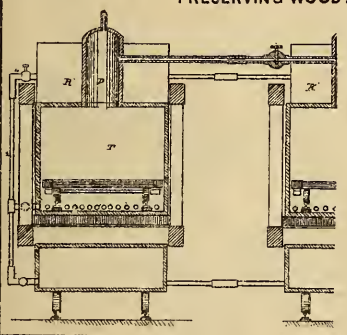
113,336, EVERETT G. PASSMORE.
LAWN-MOWERS.



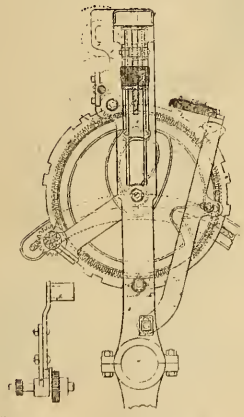
113,337, JOHN L. PEAKE. STOP-VALVES.



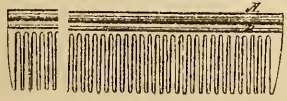
113,338 WILLIAM TILDEN PELTON.
PORTABLE APPARATUS FOR PRESERVING WOOD.



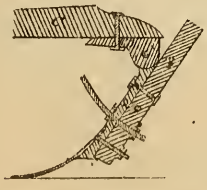
113,339, E. CONSTANTIN PFAFF.
APPARATUS FOR STRIPPING THE TOP FLATS OF CARDING-MACHINES.



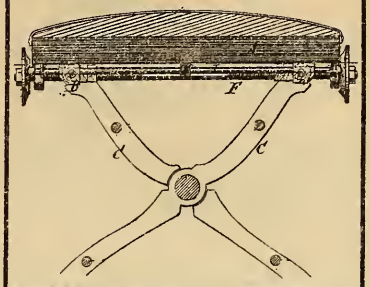
113,340, LEONCE PICOT. COMBS.



113,341, SAMUEL W. POPE. SHOVEL-PLOW

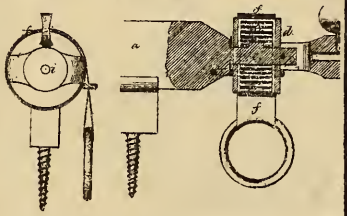


113,342, LOUIS POSTAWKA.
ADJUSTABLE SEATS.

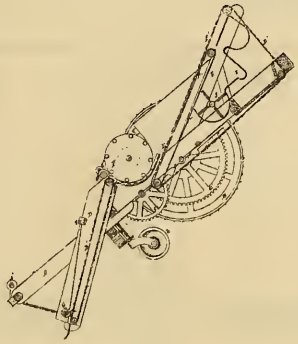


113,343, LOUIS PRANG.
PRINTING SILKS AND OTHER TEXTILE FABRICS.

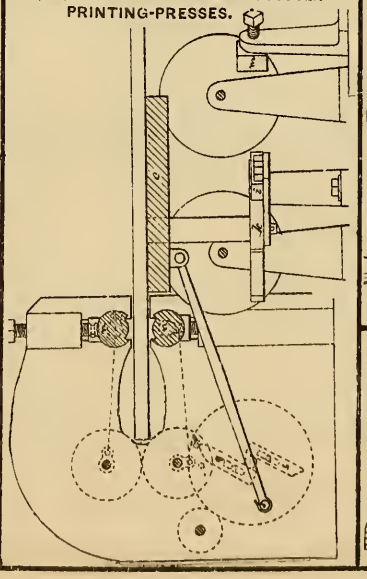
113,344, W. H. RAND.
DRILL-STOCKS.



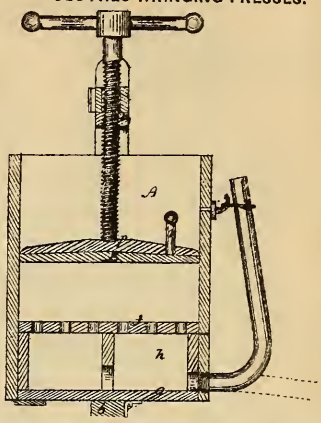
113,345. GEORGE RIEKE.
FIELD THRASHING-MACHINES.



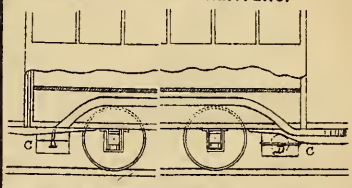
113,346. JUDAH TOURO ROBERTSON.
PRINTING-PRESSES.



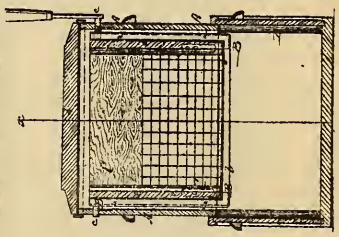
113,347 CHARLES ROBINSON.
CLOTHES-WRINGING PRESSES.



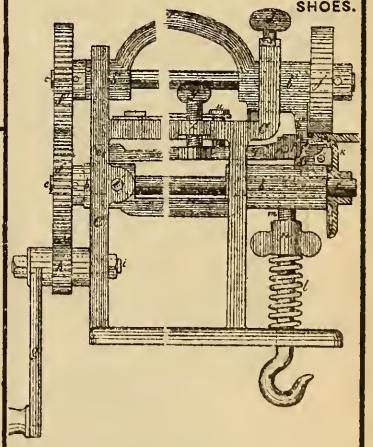
113,348, A. M. RODGERS.
RAILROAD-CAR HEATERS.



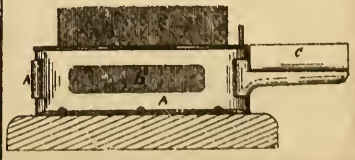
113,349, GEO. W. ROGERS. ASH-SIFTERS.



113,350, JOHN G. ROSS.
MACHINES FOR CHANNELING AND BEVELING SOLES FOR BOOTS AND SHOES.

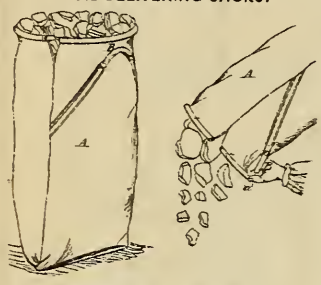


113,351. AUGUST SAHLSTROM.
FOOT-SCRAPERS.



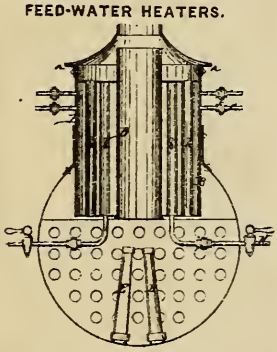
113,352 JACOB S. SANDT.
WASHING AND WRINGING-MACHINES.

113,353. WILLIAM S. SHACKLETON
COAL-DELIVERING SACKS.

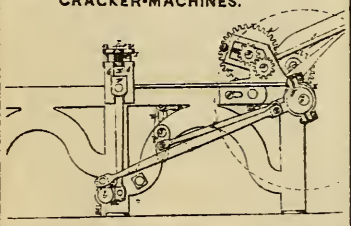


113,354. N. W. SIMONS.
HOLDBACKS FOR VEHICLES.

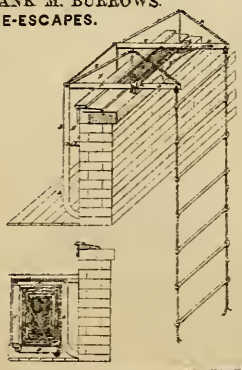
113,355. THOMAS D. SIMPSON.
FEED-WATER HEATERS.



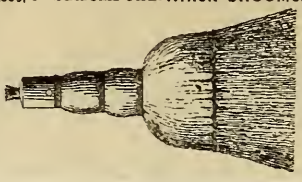
113,356. GEO. R. SKILLMAN.
CRACKER-MACHINES.



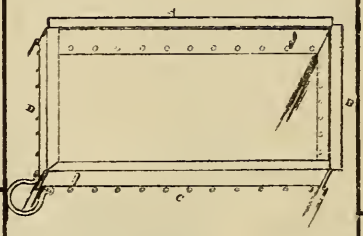
113,357. GEORGE C. SMITH.
FRANK M. BURROWS.
FIRE-ESCAPES.



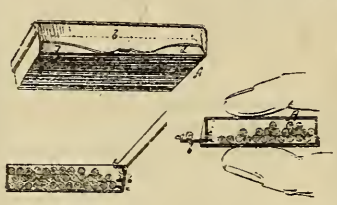
113,358. G STACKPOLE. WHISK BROOMS.



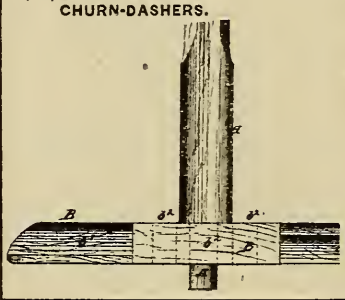
113,359. HUGH M. STEPHENSON.
JOHN B. TYER.
MAIL-BAG FASTENERS.



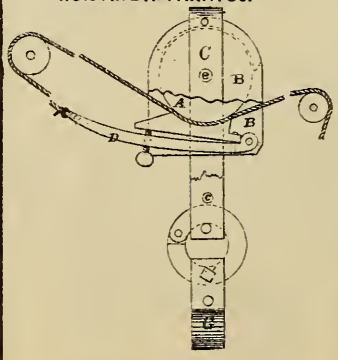
113,360. WILLIAM STINE. MATCH-SAFES.



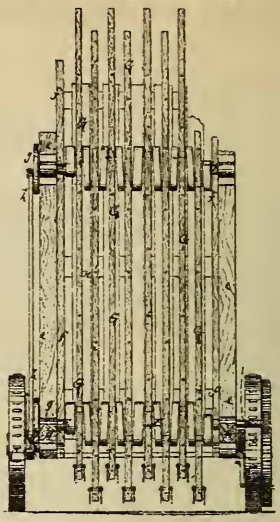
113,361, STEPHEN STOUT.
CHURN-DASHERS.



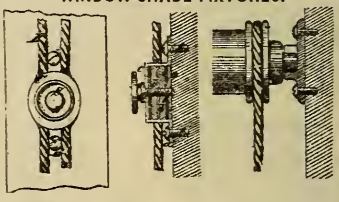
113,362, LEVERETT W. STUART.
HOISTING APPARATUS.



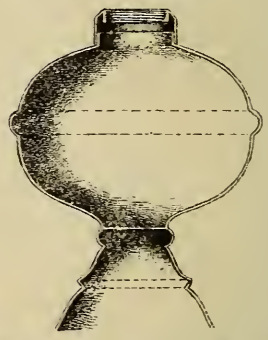
113,363. LUMAN D. TAYLOR.
HAY-LOADERS.



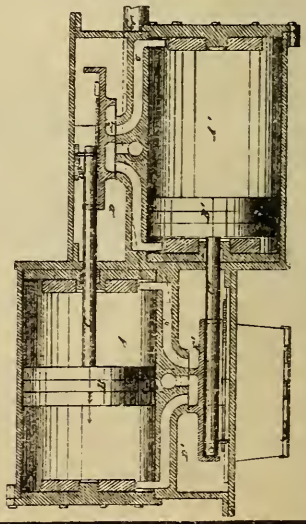
113,364, NATHAN THOMPSON.
WINDOW-SHADE FIXTURES.



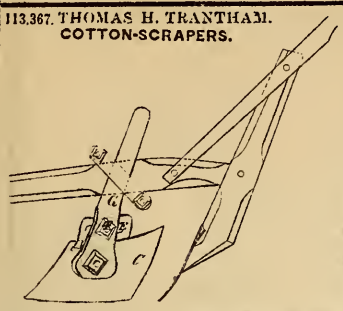
113,365. GEORGE W. THOMSON.
COATING LAMPS.



113,366, ISAAC P. TICE.
WATER-METERS.

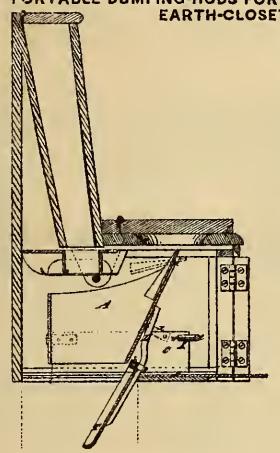


113,367. THOMAS H. TRANTHAM.
COTTON-SCRAPERS.

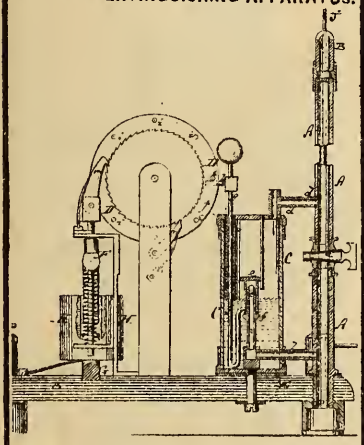


113,368. S. TRUSCOTT. RUBBER PAINT.

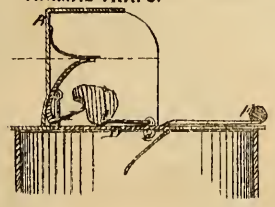
113,369. E. W. C. VANDERVEER.
PORTABLE DUMPING-HODS FOR EARTH-CLOSETS.



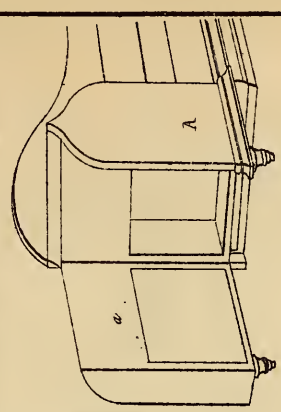
113,370. JOHN VANSANT.
ELECTRIC GAS-LIGHTING AND EXTINGUISHING APPARATUS.



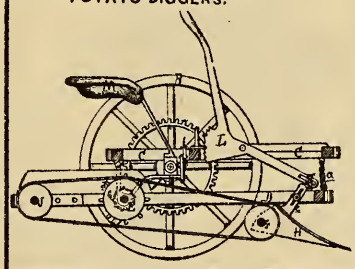
113,371. CORNELIUS B. VERONEE.
ANIMAL-TRAPS.



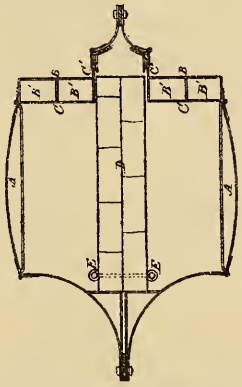
113,372. VALENTINE VON DISSEN.
BED-LOUNGES.



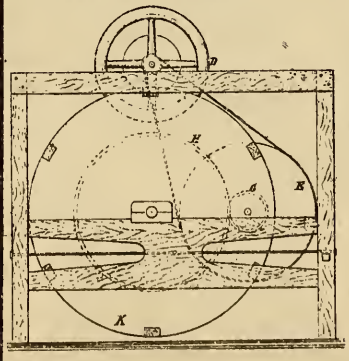
113,373. JOHN A. WADHAMS.
POTATO-DIGGERS.



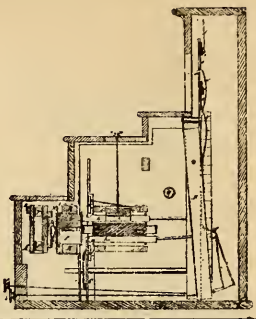
113,374. JOHN E. WALSH.
COFFER-DAMS.



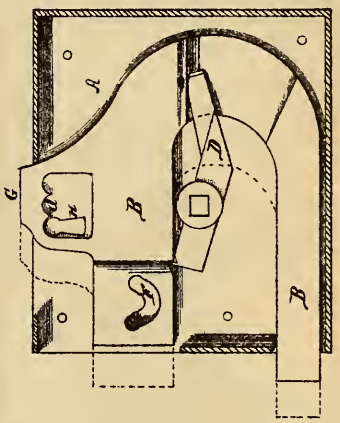
113,375. WILLIAM W. WATERBURY.
JOHN M. WATERBURY.
SAWING-MACHINES.



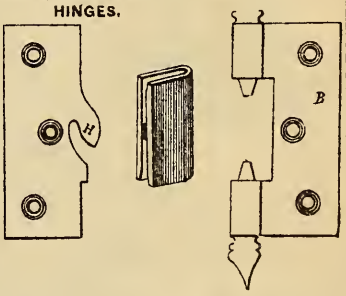
113,376. DR. ADAN WESTON.
VOTE-RECORDING MACHINES.



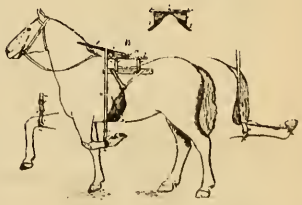
113,377. SHEPHERD H. WHEELER.
COMBINED LOCKS AND LATCHES.



113,378. SHEPHERD H. WHEELER.
HINGES.

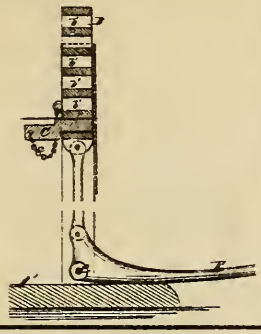


113,379. THOMAS C. WILLIAMS.
FOOT-LIFTERS FOR BLACKSMITHS.

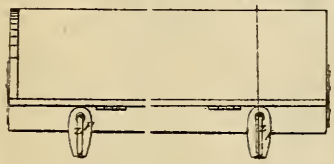


113,380. CHARLES F. WILSON
SPINDLE-BEARINGS.

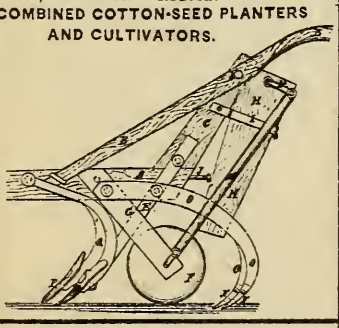
113,381, HIRAM J. WILSON.
LIFTING-JACKS.



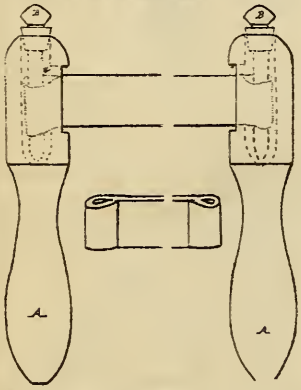
113,382, JAMES HENRY LAURENCE WILSON.
CRIB ATTACHMENTS FOR BEDSTEADS.



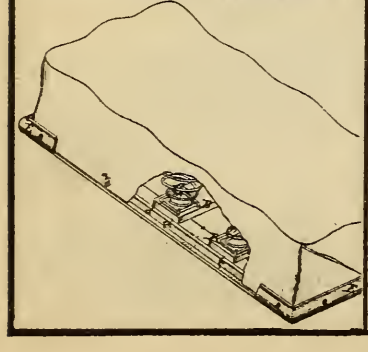
113,383, JAMES A. WRIGHT.
COMBINED COTTON-SEED PLANTERS AND CULTIVATORS.



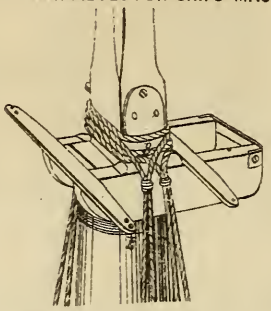
113,384, SAMUEL M. BARNETT.
CHEST-EXPANDERS.



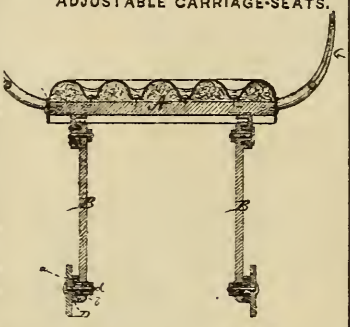
113,385, LYMAN M. BATES.
SPRING BED-BOTTOMS.



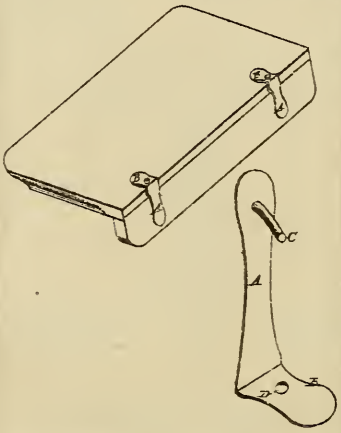
113,386, JOSEPH BAYMORE.
CHEEK-PIECES FOR SHIPS' MASTS



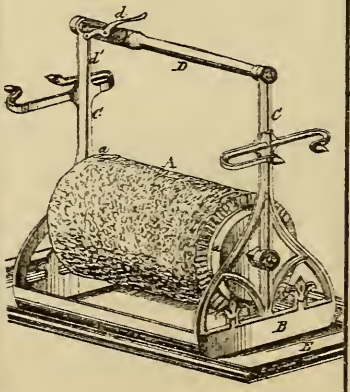
113,387, SYLVESTER W. BEACH.
ADJUSTABLE CARRIAGE-SEATS.



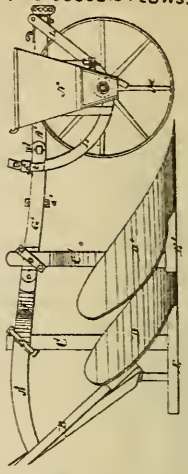
113,388 WILLIAM J. BENDER.
ATTACHING MARBLE TOPS AND BACKS OF WASH-STANDS



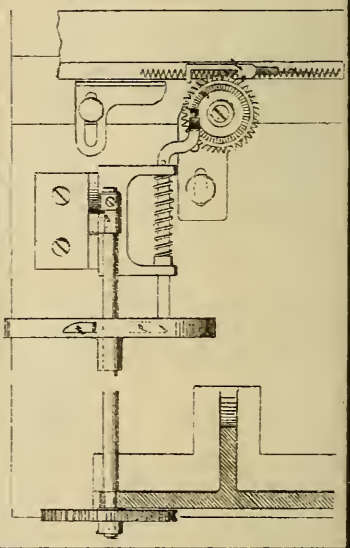
113,389, NORBORNE BERKELEY.
DOOR-MATS.



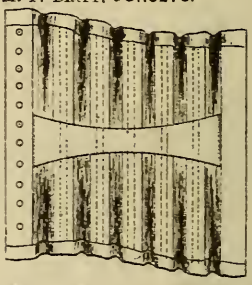
113,390, JOEL L. BOND.
GANG AND SUBSOIL-PLOWS.



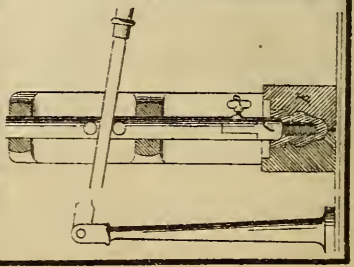
113,391, T. W. BRACHER.
SEWING-MACHINES.



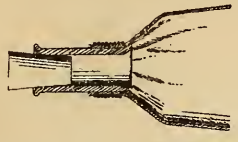
113,392, M. P. BRAY. CORSETS.



113,393, WM. BROOKFIELD.
MODES OF MAKING TELEGRAPH-INSULATORS.



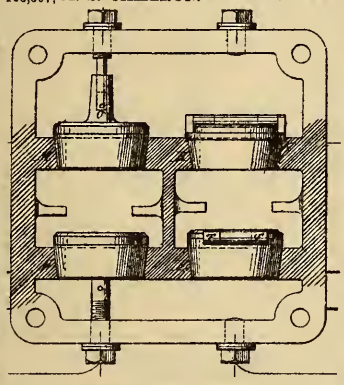
113,394, MORGAN W. BROWN.
PACKAGES FOR HYDROCARBONS AND OTHER LIQUIDS.



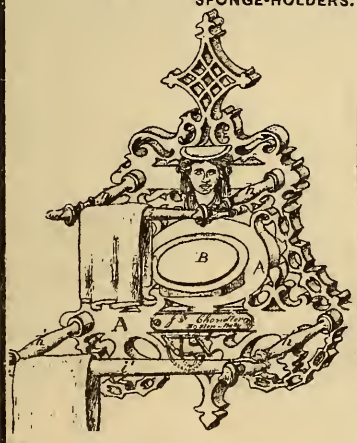
113,395, MORGAN W. BROWN.
PACKAGES FOR OYSTERS, CLAMS, &c.

113,396, MORGAN W. BROWN.
COVERINGS FOR SAUSAGES AND OTHER MEATS.

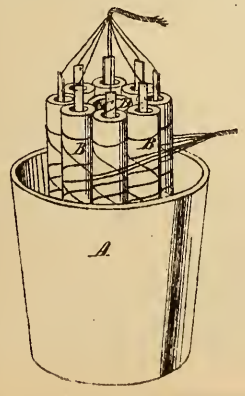
113,397, A. S. CAMERON. PUMP-VALVES.



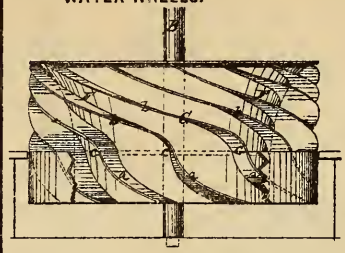
113,398 J. FRANK CHANDLER.
TOWEL-BRACKETS AND SPONGE-HOLDERS.



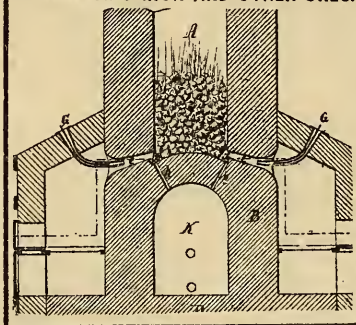
113,399, D. M. COOK.
ELECTRIC BATTERIES FOR TELEGRAPHING AND OTHER PURPOSES.



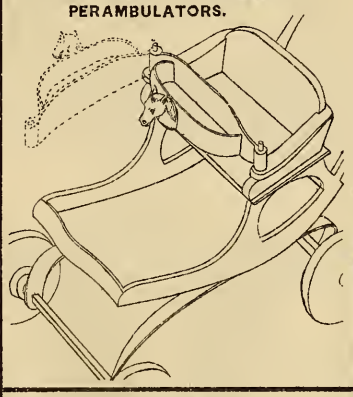
113,400, GARDNER COX.
WATER-WHEELS.



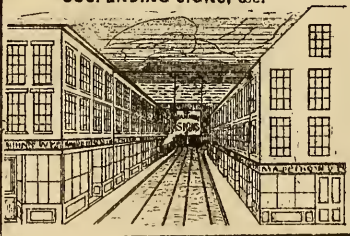
113,401, RICHARD D. COX.
WILLIAM F. COX.
SMELTING IRON AND OTHER ORES.



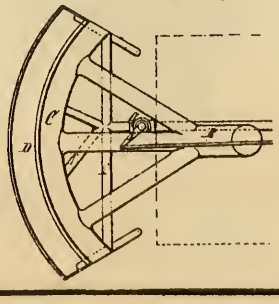
113,402, BENJAMIN P. CRANDALL, JR.
CHILDREN'S CARRIAGES OR PERAMBULATORS.



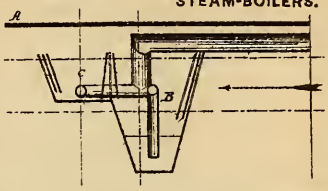
113,403, JOHN H. CRANE.
CHAS. W. CRANE.
SUSPENDING-SIGNS, &c.



113,404, SAML. E. CURSONS.
STREET-SPRINKLING MACHINES.

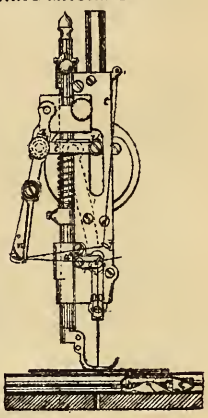


113,405, COLLINS W. DEANE.
SEDIMENT-COLLECTORS FOR STEAM-BOILERS.

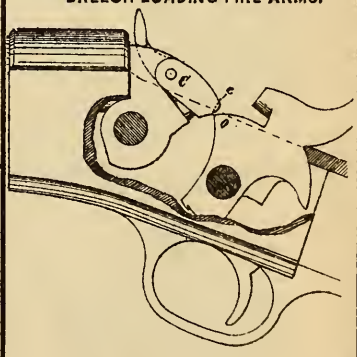


113,406, MYRON H. DENSMORE.
TRACE-BUCKLES.

113,407, A. S. DINSMORE.
SEWING-MACHINES.



113,408, WILLIAM C. DODGE.
BREECH-LOADING FIRE-ARMS.



113,409, JAMES F. EMERY.
ADVERTISING DEVICES.

ALBANY OFFICE.

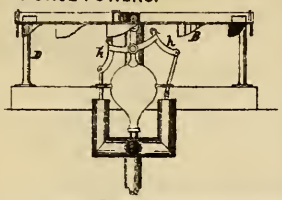
Hope Mutual Life Insurance

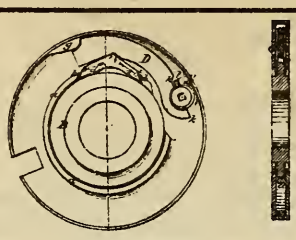
551 & 553 BROADWAY.

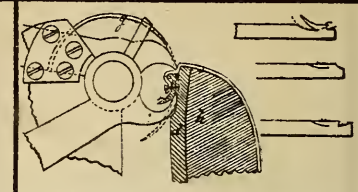
JAMES F. EMERY, General Manager.

Albany, N. Y.

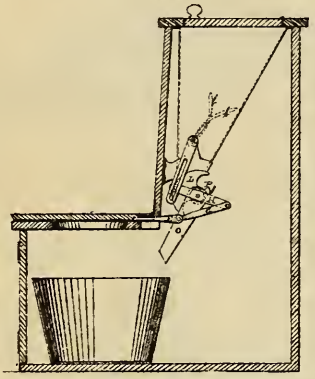
113,410, THOMAS ADDIS EMMET EVANS.
HORSE-POWERS.



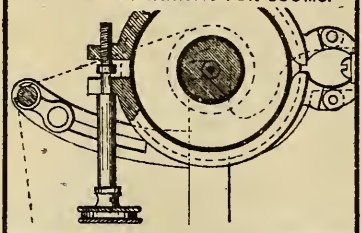




113,411, BENJAMIN FERRIS.
EARTH-CLOSETS.

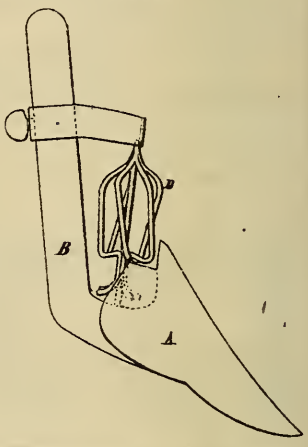


113,415, W. T. FLINN.
LET-OFF MECHANISMS FOR LOOMS.

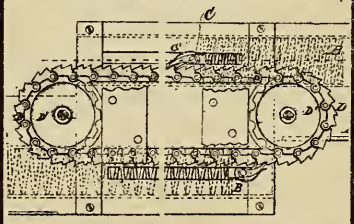


113,416, DAVID FORBES.
ASTLEY PASTON PRICE.
TREATMENT OF SEWAGE AND THE MANUFACTURE OF FERTILIZERS.

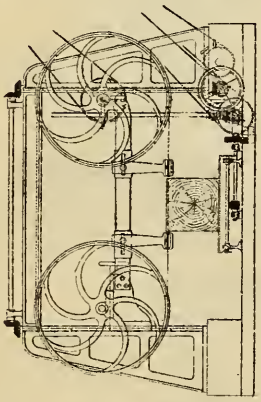
113,421, C. M. GORDON.
PLOW-COLTERS.



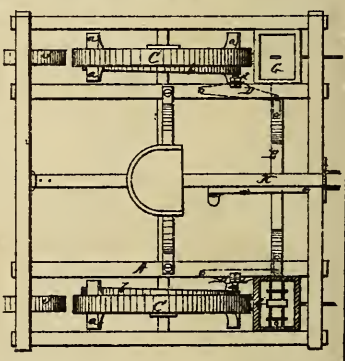
113,417, JOHN T. GILBERT.
MOTIVE-POWER APPARATUS.



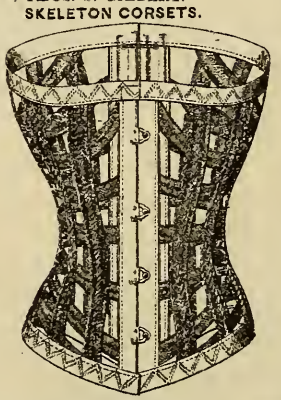
113,412, GEORGE FINNEGAN. SAW-MILLS.



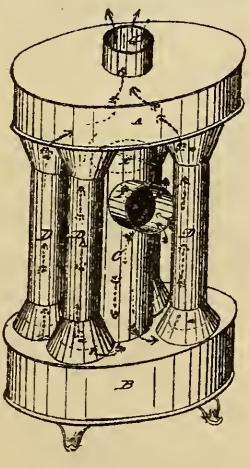
113,422, LEWIS GRAHAM.
CORN-PLANTERS.



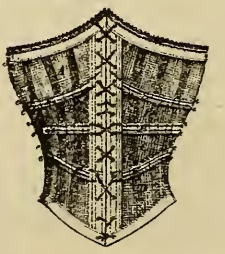
113,418, THOS. S. GILBERT.
SKELETON CORSETS.



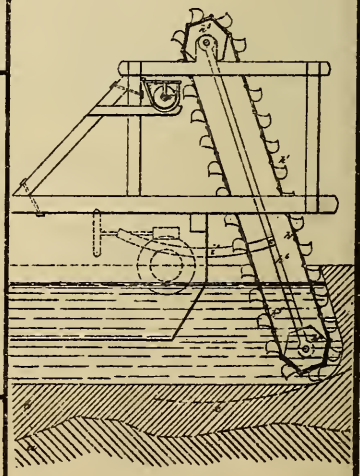
113,413, CHAS. FISHER. STOVE-DRUMS.



113,419, THOS. S. GILBERT.
CORSETS.



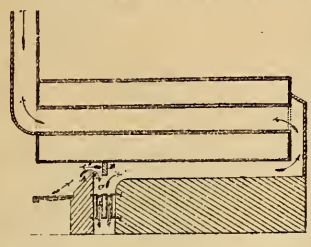
113,423, ROBERT ARTHUR GRIFFIN.
MANUFACTURE OF PEAT-FUEL.



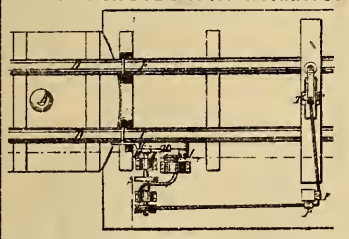
113,414. CHARLES FLESCH.
TUMBLERS FOR PERMUTATION-LOCKS.

113,420, CHAS. GOODYEAR, JR.
JOZE DA SILVA.
BOOT AND SHOE-SOLES.

113,424, JOHN C. GRIPP.
FURNACES FOR STEAM-BOILERS.

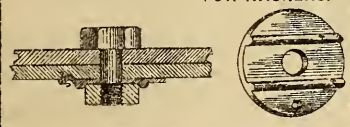


113,425, THOMAS S. HALL.
RAILWAY-BRIDGE SIGNAL APPARATUS.

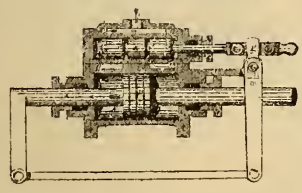


113,426, HENRY HAPPEL.
COMPOSITIONS FOR COATING PHOTOGRAPH-PICTURES.

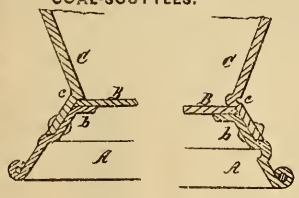
113,427, THOMAS C. HARGRAVE.
ROLLED METALLIC STRIPS FOR WASHERS.



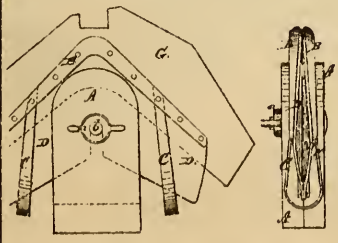
113,428, WILLIAM Z. HATCHER.
VALVES AND VALVE-GEARS.



113,429, GEORGE H. HAZELTON.
DWIGHT W. HAZELTON.
COAL-SCUTTLES.

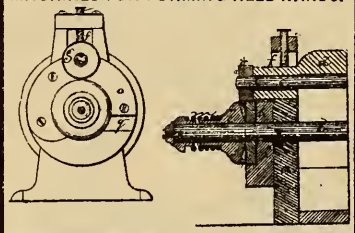


113,430, HENRY HENLEY.
BOOT-CRIMPERS.

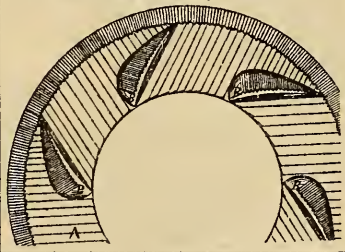


113,431, ALFRED C. HOBBS.
BULLET-PATCHES.

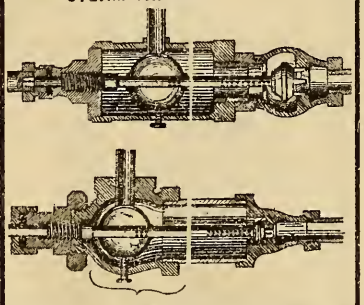
113,432, SUMNER HOLMES.
JOS. F. SARGENT.
MACHINES FOR FORMING HEEL-RANDS.



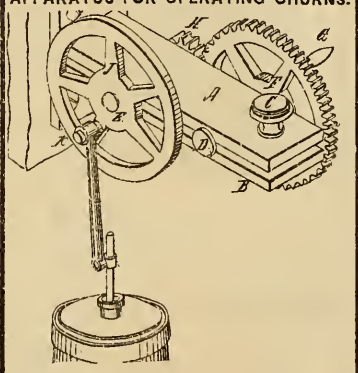
113,433, EDMUND S. HOWLAND.
GRINDING-PLATES.



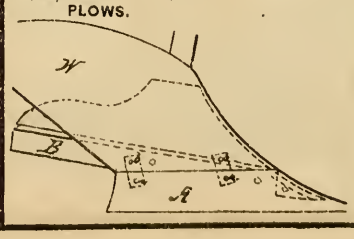
113,434, JOHN JOS. JORDAN.
STEAM-TRAPS.



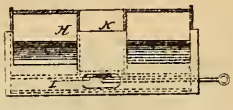
113,435, P. L. JORDAN.
APPARATUS FOR OPERATING CHURNS.



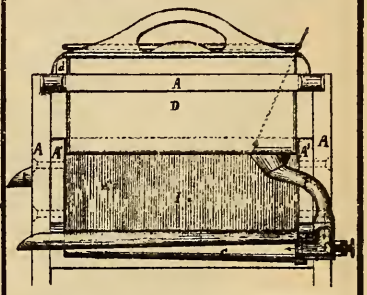
113,436, JOHN LANE, JR.
PLOWS.



113,437, E. C. LITTLE.
D. H. NATION.
COOKING-STOVES.

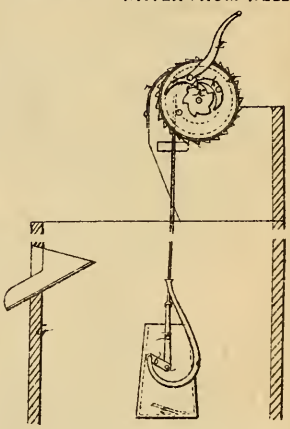


113,438, JOHN R. McKAY.
APPARATUS FOR COOLING MILK.

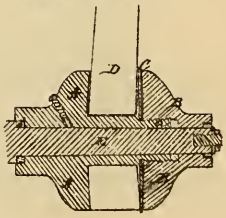


113,439, EDGAR C. MERRILL.
MANUFACTURE OF EMERY-WHEELS AND ARTIFICIAL STONE.

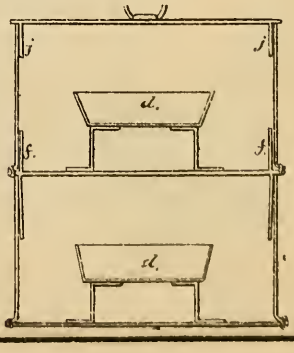
113,440, MERRICK A. MIHILLS.
APPARATUS FOR DRAWING WATER FROM WELLS.



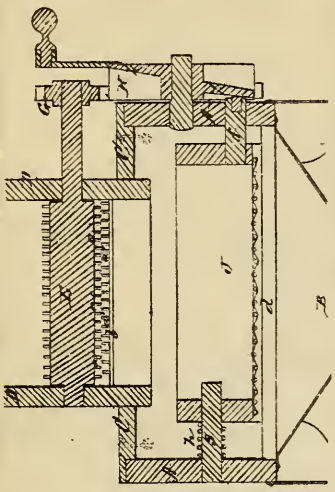
113,441, JAMES R. MILLS.
WHEELS FOR VEHICLES.



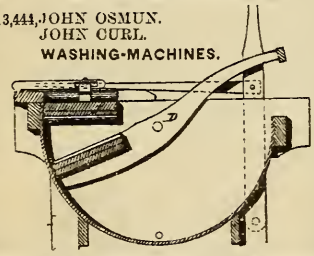
113,442, WM. H. MURCH.
CULINARY VESSELS.



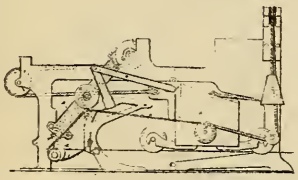
113,443, OLIVER D. MYERS.
FLOUR-SIFTERS.



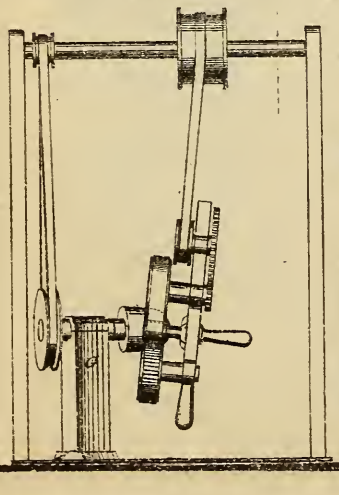
113,444, JOHN OSMUN.
JOHN CURL.
WASHING-MACHINES.



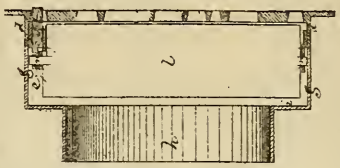
113,445 CHARLES BRAHAM PARKINSON.
AARON METCALF.
JOHN METCALF.
WILLIAM HESKETH HEALD.
SELF-ACTING MULES FOR SPINNING.



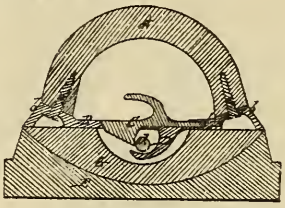
113,446, A. PELISSE.
GEORGE W. STOUTE.
MACHINES FOR POUNCING HATS



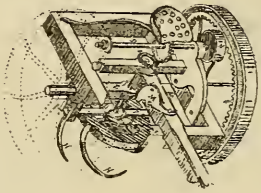
113,447, HUGH M. PHINNEY.
HOT-AIR REGISTERS.



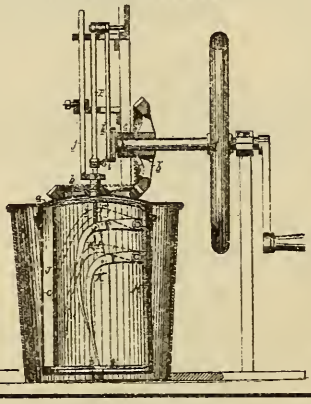
113,448, MARY FLORENCE POTTS.
SAD-IRONS.



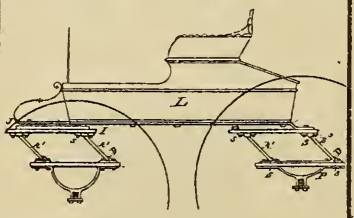
113,449, JOHN P. RADLEY.
POTATO-DIGGERS.



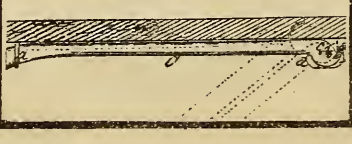
113,450, JOHN FRANKLIN ROTE.
ICE-CREAM FREEZERS.



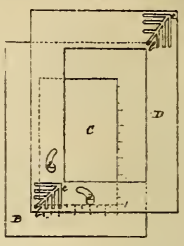
113,451, CYRUS W. SALADEE.
SPRINGS FOR WHEELED VEHICLES.



113,452, DANIEL SAYLOR.
LAURITZ ANDERSON.
TABLE-LEAF SUPPORTS.

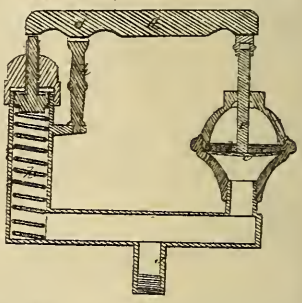


113,453, ADOLPH J. SCHAFHIRT.
APPARATUS FOR SPREADING MEDICAL PLASTERS



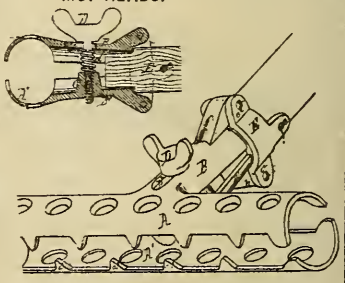
113,454 AUGUSTUS T. SCHMIDT.
TREATING PAPER AND VEGETABLE FIBROUS SUBSTANCES.

113,455, MATTHEW SCRANNAGE.
EDWARD SCRANNAGE, JR.
SAFETY-VALVES.

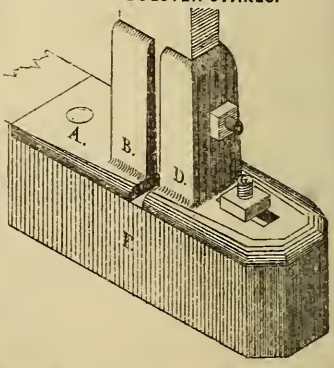


113,456, ANTHONY SEABOLD.
CORN-SALVES.

113,457, SAMUEL SELDEN.
MATTHEW GRISWOLD, JR.
MOP-HEADS.

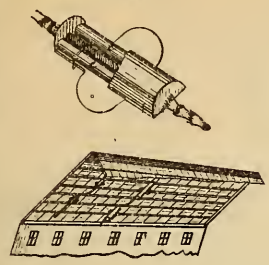


113,458, LEWIS W. SHAEFFER.
WAGON-BOLSTER STAKES.



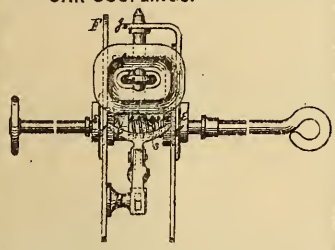
113,459, WM. T. SHERMAN.
COMPOUNDS FOR CURE OF FOOT-ROT IN SHEEP.

113,460, HORATIO N. SHULTZ
FIRE-ALARMS.

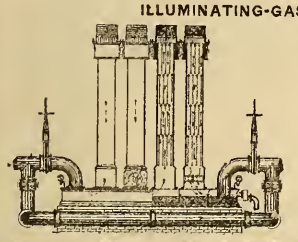


113,461, ISAAC A. SINGER.
BIRD-CAGE MATS.

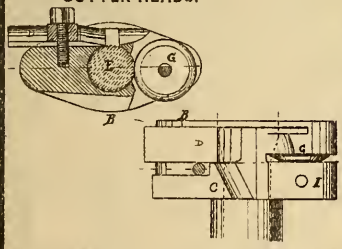
113,462, GEO. C. SPANGLER.
CAR-COUPLINGS.



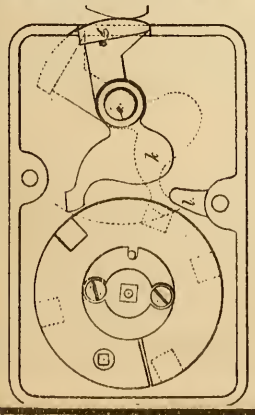
113,463, WM. H. ST. JOHN.
S. O. ROCKWELL.
FRICTION-CONDENSERS FOR ILLUMINATING-GAS.



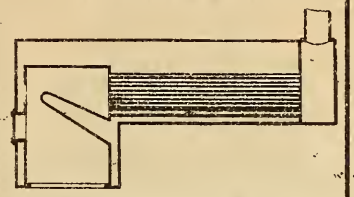
113,464, ALONZO L. SWEET.
CUTTER-HEADS.



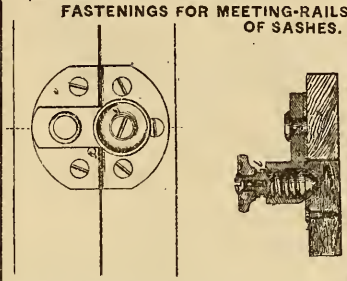
113,465, WILLIAM TERWILLIGER.
PERMUTATION-LOCKS.



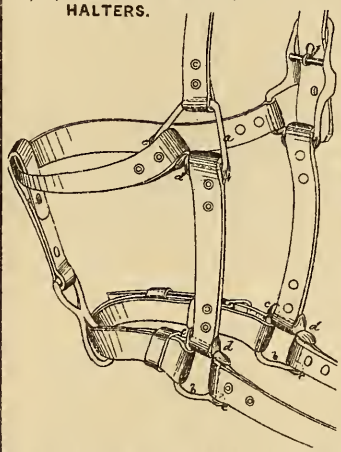
113,466, CHARLES A. THOMPSON.
TUBULAR STEAM-BOILERS.



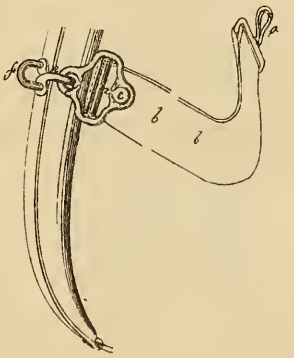
113,467, NATHAN THOMPSON
FASTENINGS FOR MEETING-RAILS OF SASHES.



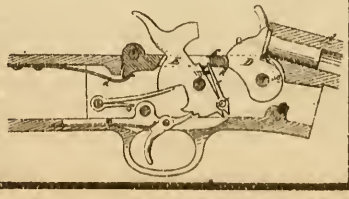
113,468, JAMES THORNTON.
HALTERS.



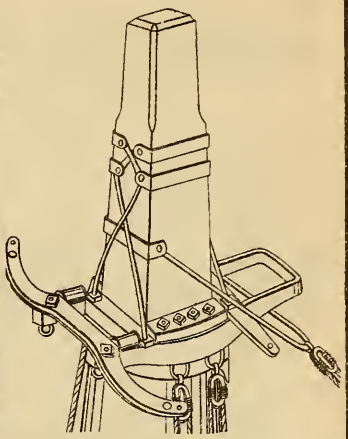
113,469, JAMES THORNTON.
EMMIT G. LATTA.
ATTACHMENTS TO HAMES.



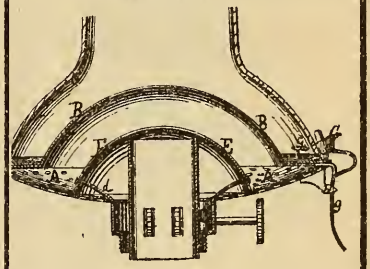
113,470, FRANK TIESING.
CHARLES GERNER.
BREECH-LOADING FIRE-ARMS.



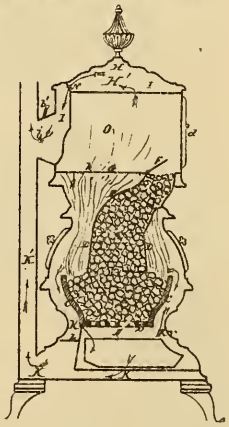
113,471, HENRY TOWNSEND.
SHIPS' TRESTLE-TREES.



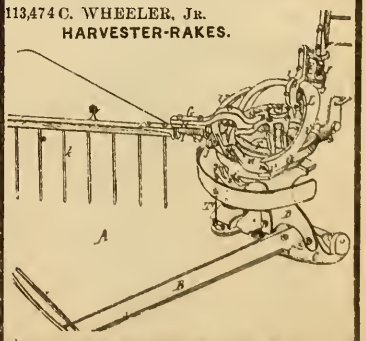
113,472, JOSEPH TRENT.
LAMP-BURNERS.



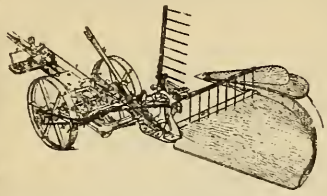
113,473, JASPER VAN WORMER.
BASE-BURNING STOVES.



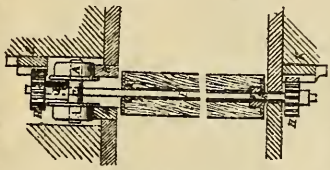
113,474 C. WHEELER, JR.
HARVESTER-RAKES.



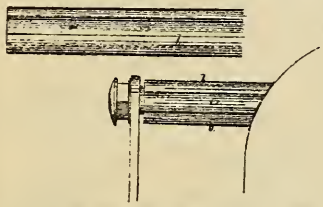
113,475, C. WHEELER, JR. HARVESTERS.
CALVIN YOUNG.



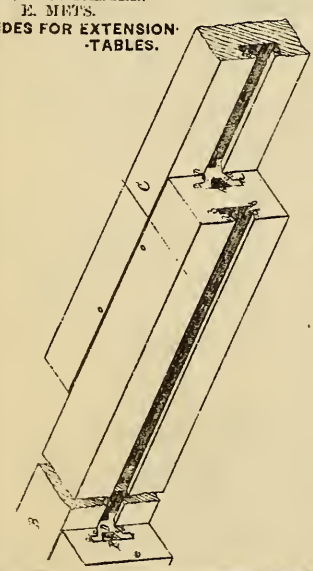
113,476, DOUGLAS JOSEPH WILLIAMS.
MOVABLE PARTITIONS.



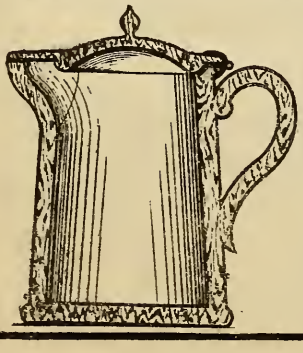
113,477, JOHN J. WILSON.
BLOCKS FOR TOP-PROP JOINTS FOR CARRIAGES.



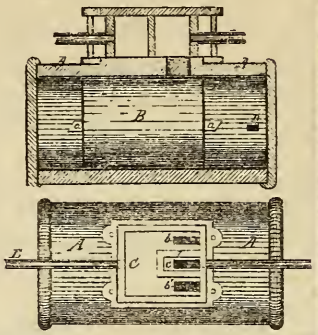
4,317, M. E. CARTER.
E. METS.
SLIDES FOR EXTENSION-TABLES.



4,318, KINGSTON GODDARD.
WATER-PITCHERS AND OTHER VESSELS.



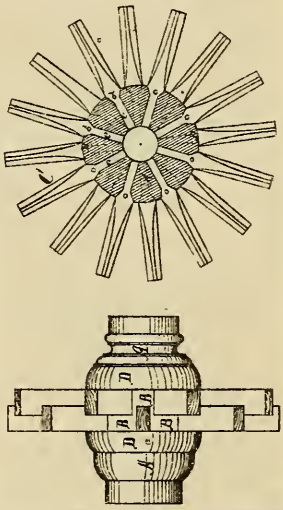
4,319, ROBT. C. GRAY.
W. B. BRITTINGHAM
PISTON STEAM-VALVES.



4,320, CHARLES GRAEBE.
CHARLES LIEBERMANN.
MANUFACTURE OF ALIZARINE.

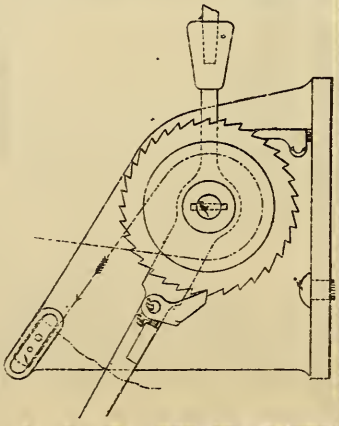
4,321, CHARLES GRAEBE.
CHARLES LIEBERMANN.
DYES OR COLORING MATTERS FROM ANTHRACINE.

4,322, ROBERT W. McCLELLAND
CARRIAGE-WHEELS.

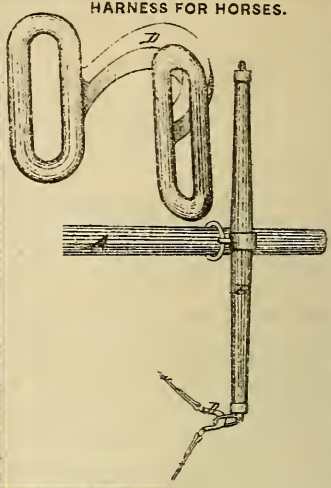


4,323, FRANCIS C. MENDE.
THEODORE F. MENDE.
MANUFACTURE OF GERMAN HAND-CHEESE.

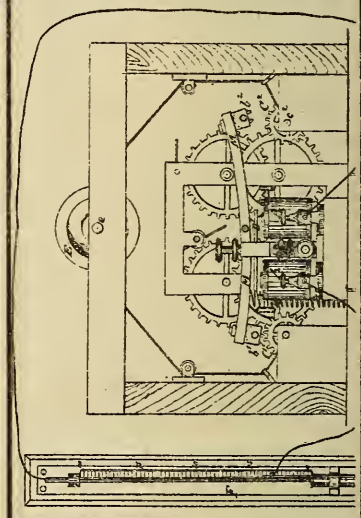
4,324, ARTHUR PAGET.
MACHINES FOR TIGHTENING ROPES, &c.



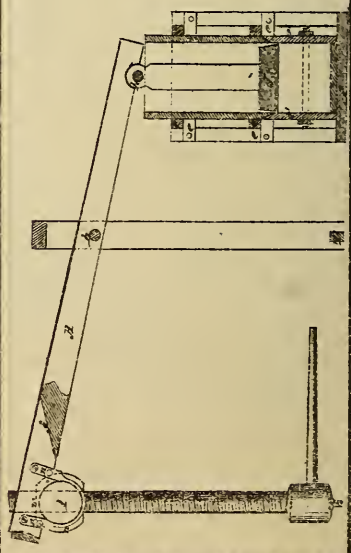
4,325, JOHN ROUSE.
HARNESS FOR HORSES.



4,326, GEO. M. STERNBERG.
ELECTRO-MAGNETIC REGULATORS FOR TEMPERATURE IN ROOMS, &c.



4,327, PAUL WILLIAMS.
COTTON-PRESSES.



ILLUSTRATIONS OF PATENTS

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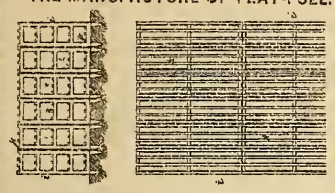
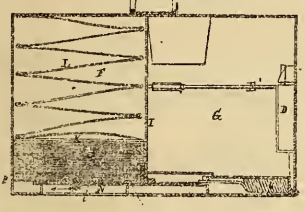
APRIL 11, 1871.

113,478, DAVID AIKMAN.
THE MANUFACTURE OF PEAT-FUEL.

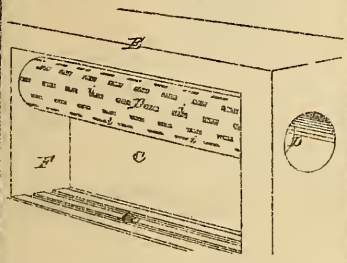


113,479 ALBERT F. R. ARNDT.
TICKET-HOLDERS.

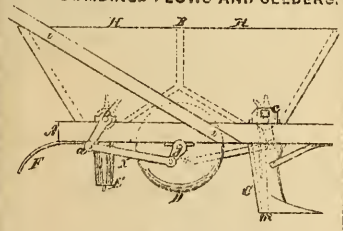


113,480, WM. ANHEUSER.
PITCHING BARRELS.

113,481 WILLIAM FORDYCE BEECHER.
FIRE-CHAMBERS OF PUDDLING, STEAM-BOILER, AND OTHER FURNACES.



113,482 WILLIAM C. BIBB.
COMBINED PLOWS AND SEEDERS.



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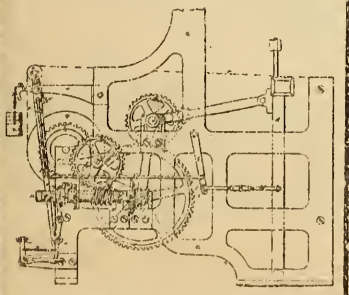
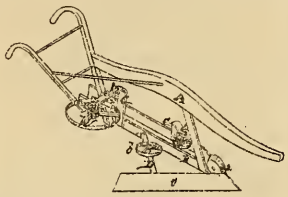
LET-OFF MECHANISMS FOR LOOMS.



113,484, JEROME BLANCHARD. PLOWS.



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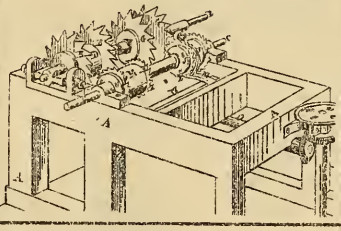
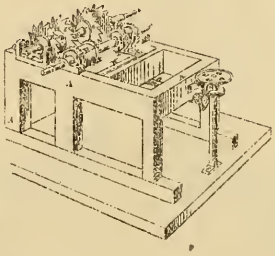
W. A. GIBSON.
ELASTIC CEMENTS FOR LINING PETROLEUM-BARRELS.

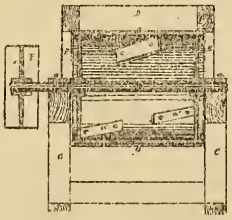


113,486, AUGUSTUS O. BOURN.
ISAAC F. WILLIAMS.
MANUFACTURE OF RUBBER-BELTING.

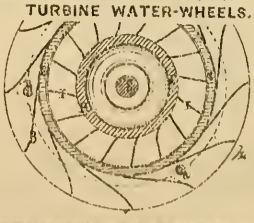
113,487, H. E. BRADT EDGING-MACHINES.

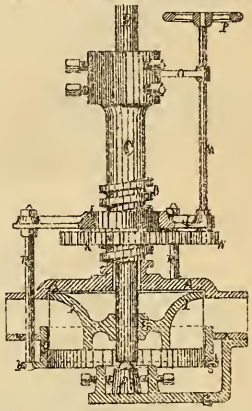


113,488, JAMES BRIDGE.
MACHINES FOR REDUCING WOOD FOR THE MANUFACTURE OF PAPER-PULP.

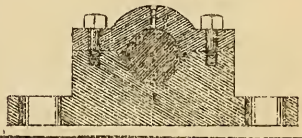


113,489, McKENDRE A. BROOKS.
TURBINE WATER-WHEELS.

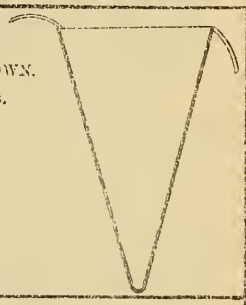




113,490. ARTHUR GIBSON BROWN.
JOURNAL-BOXES.

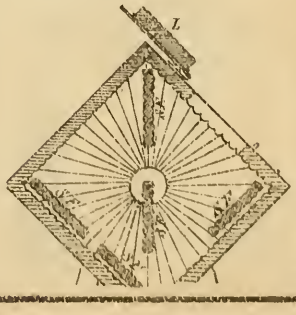


113,491.
JAMES BROWN.
FILTERS.

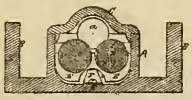


113,492, ESEK BUSSEY.
HEATING-STOVES.

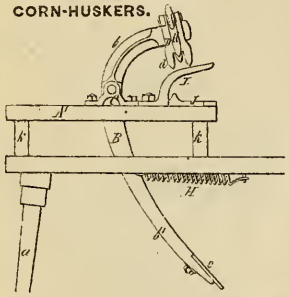
113,493, JOHN E. CARROLL.
JOHN LORD.
WASHING-MACHINES.



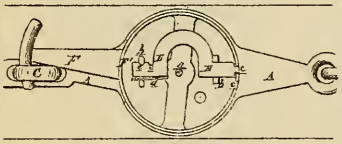
113,494, WILLIAM T. CARROLL.
JOURNAL-BOXES.



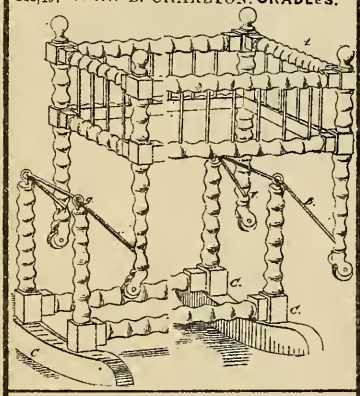
113,495, ERASTUS H. CARVER.
GEORGE M. BAKER.
CORN-HUSKERS.



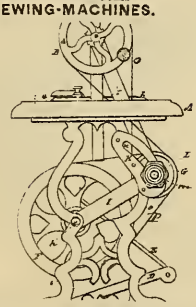
113,496, WILLIAM N. CHAMBERLAIN.
HASP-LOCKS.



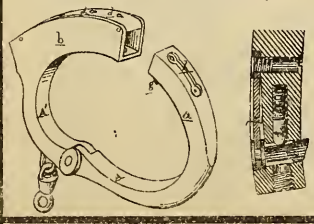
113,497 JOHN B. CHARLTON. CRADLES.



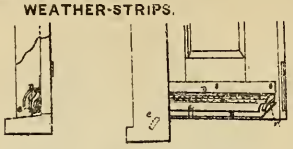
113,498, MILTON CHASE.
SEWING-MACHINES.



113,499, HORACE H. CHENEY.
LOCKS FOR HAND-CUFFS.

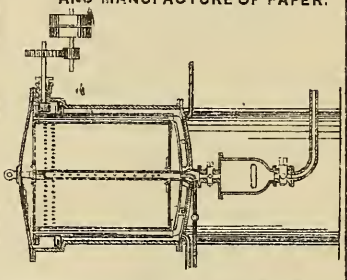


113,500, FRANKLIN A. COATS.
WEATHER-STRIPS.

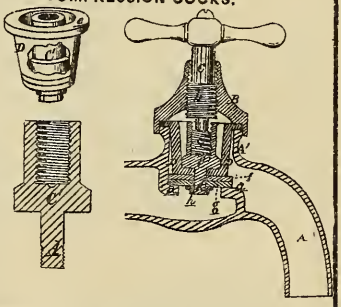


113,501, JOHN J. CROOKE.
LEWIS CROOKE.
PLATED BUTT-HINGES.

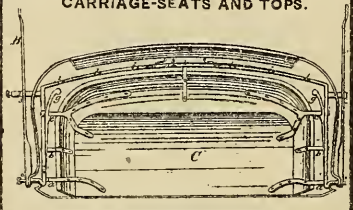
113,502, J. DENIS.
PREPARATION OF PAPER-PULP
AND MANUFACTURE OF PAPER.



113,503, WILLIAM DINNEN.
COMPRESSION-COCKS.

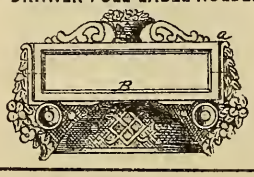


113,504, LEWIS Z. DODDS.
CARRIAGE-SEATS AND TOPS.



113,505, WILLIAM DUGAN.
PRESERVING AND TRANSPORTING
FRESH MEATS.

113,506, JOHN A. EVARTS.
PIETRO CINQUINI.
DRAWER-PULL LABEL-HOLDERS.



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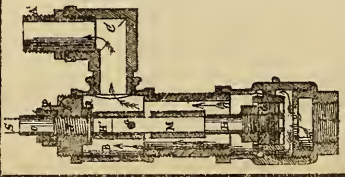
HYDRANTS.



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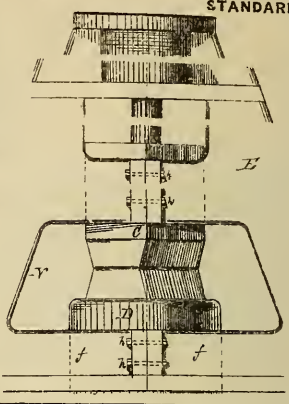
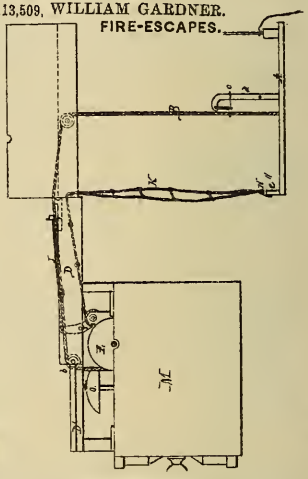
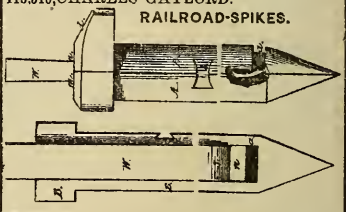
FREDERICK B. MILES
CONSTRUCTION OF STEAM-HAMMER
STANDARDS.



113,509, WILLIAM GARDNER.
FIRE-ESCAPES.



113,510, CHARLES GAYLORD.
RAILROAD-SPIKES.



113,511, JULIUS GERBER.
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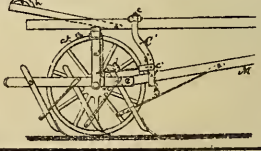
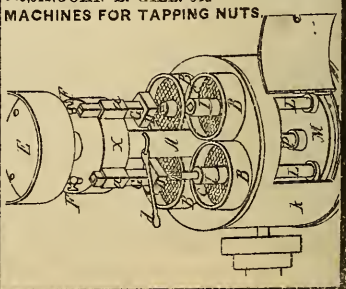
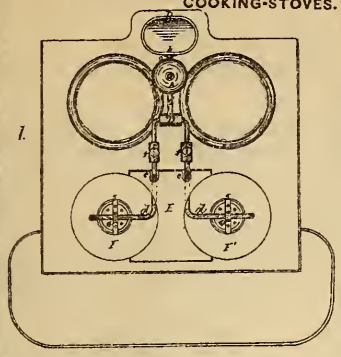
CULTIVATORS.



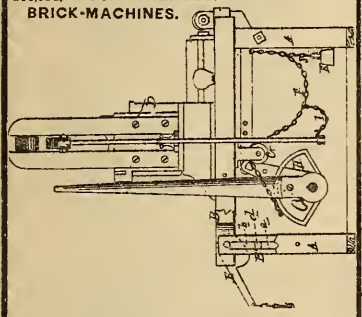
113,512, JOHN L. GILL, JR.
MACHINES FOR TAPPING NUTS.



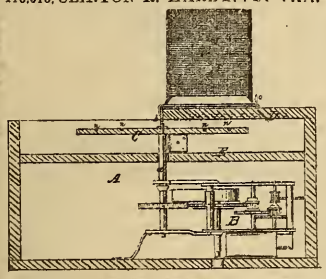
113,513, FREDERICK HAINSWORTH.
GASOLINE ATTACHMENTS FOR COOKING-STOVES.



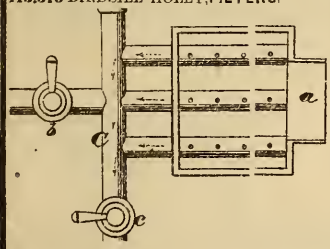
113,514, ENOCH HALLETT.
BRICK-MACHINES.



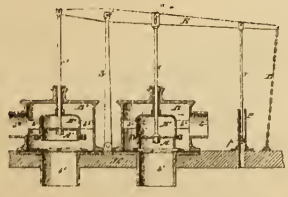
113,515, CLINTON R. HARDY. FLY-TRAPS.



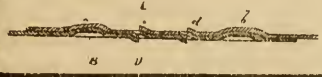
113,516 BIRDSILL HOLLY, FILTERS.



113,517 BIRDSILL HOLLY.
REGULATING AND SAFETY VALVES



113,518, JOHN HOLMES. BALE-TIES.
JAMES C. H. SLACK.



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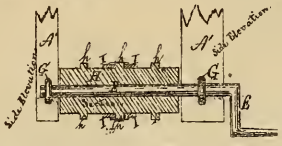
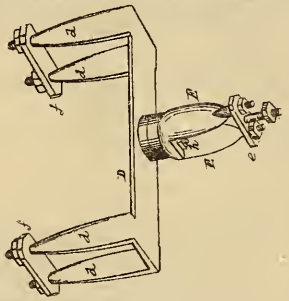
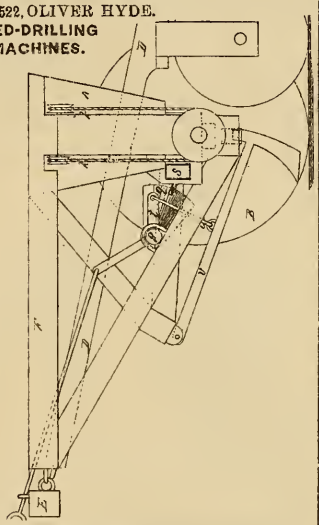
113,520, ALMON HUNT. CULTIVATORS.



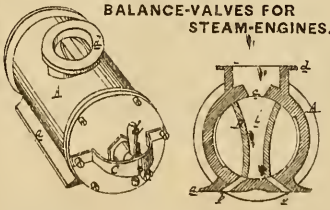
113,521, DWIGHT HYDE.
EPHRAIM H. ANDREWS.
KING-BOLTS FOR CARRIAGES.



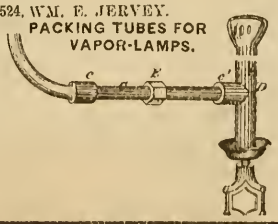
113,522, OLIVER HYDE.
SEED-DRILLING MACHINES.



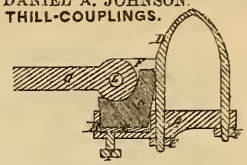
113,523, NELSON JENKINS.
BALANCE-VALVES FOR STEAM-ENGINES.



113,524, WM. E. JERVEY.
PACKING TUBES FOR VAPOR-LAMPS.

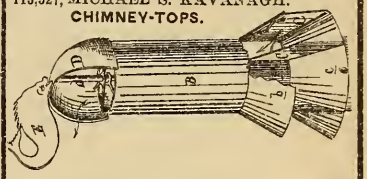


113,525, DANIEL A. JOHNSON.
THILL-COUPLINGS.

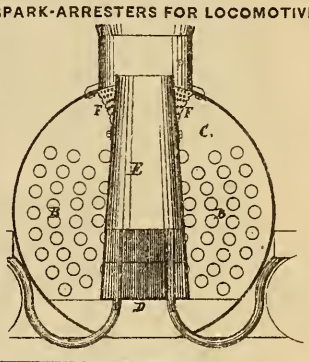


113,526, EZRA A. JOHNSON.
SOAPS FOR POLISHING METALS, &c.

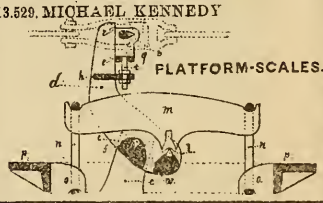
113,527, MICHAEL S. KAVANAGH.
CHIMNEY-TOPS.



113,528, FRANCIS KEARNEY.
LUKE F. TRONSON.
SPARK-ARRESTERS FOR LOCOMOTIVES.

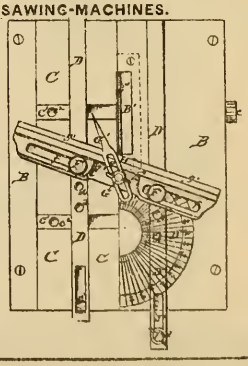


113,529, MICHAEL KENNEDY
PLATFORM-SCALES.



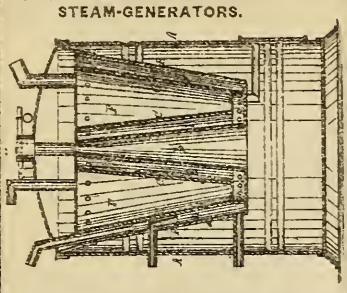
113,530, LEWIS KING LIGHTNING-RODS.

113,531, PHINEAS F. KING.
EDWIN A. KING.
SAWING-MACHINES.

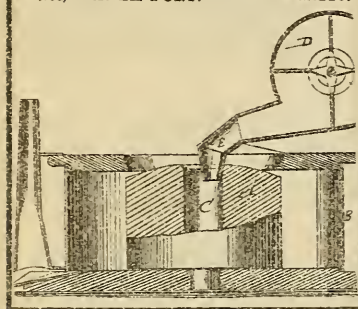


113,532, JACOB LACMANN.
DOLLS.

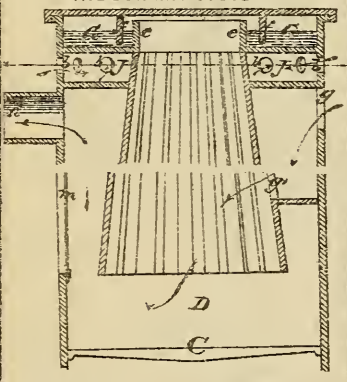
113,533, ERASMUS D. LACY.
STEAM-GENERATORS.



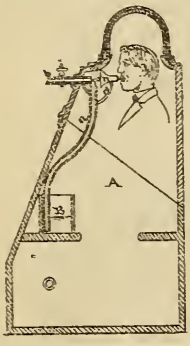
113,534, F. H. LA PORT. GRINDING-MILLS.



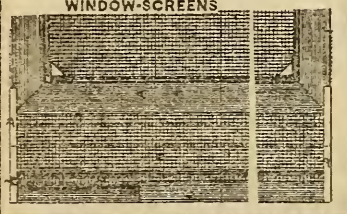
113,535. SILAS HOFFMAN LA RUE.
BASE-BURNING STOVES.



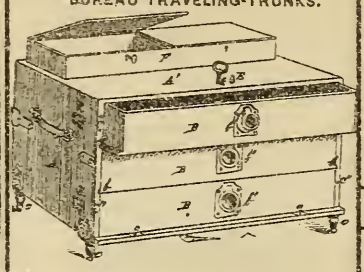
113,536 FREDERICK C. LELAND.
SAMUEL W. POLAND.
DEPURATORS.



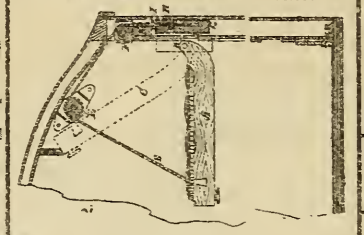
113,537 CHARLES F. LINSCOTT.
WINDOW-SCREENS.



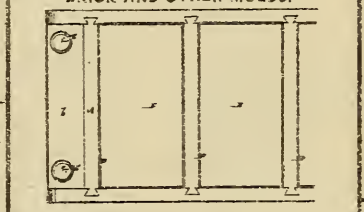
113,538, HECTOR MACKINNON.
BUREAU TRAVELING-TRUNKS.



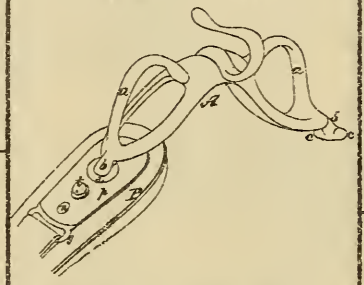
113,539, BENJ. F. MANIER.
BERTHS FOR SLEEPING-CARS.



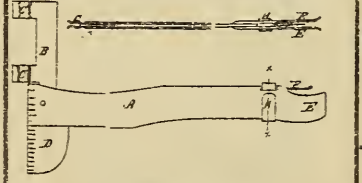
113,540, HENRY MARTIN.
BRICK AND OTHER MOLDS.



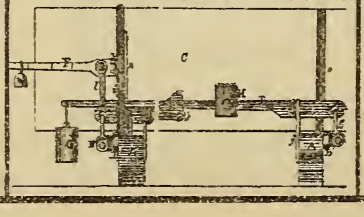
113,541. JOHN H. MARTIN.
HARNESS SADDLE-TREES.



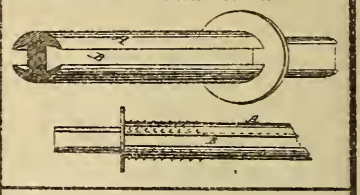
113,542, CHAS. F. MARTINE.
NEEDLE-SETTERS AND THREADERS.



113,543. WM. H. McCORMICK.
WEIGHING ATTACHMENTS TO WAGONS.

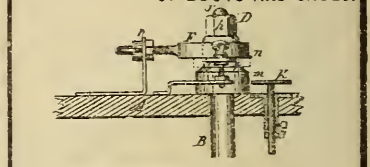


113,544, THOMAS E. McDONALD.
SPINDLES FOR WRINGER-ROLLERS.



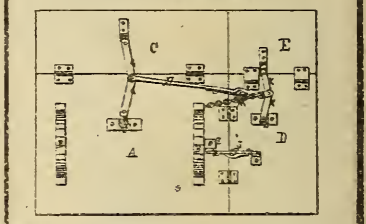
113,545 SUSPENDED.

113,546, DANIEL McLAUGHLIN.
MACHINES FOR TRIMMING THE SOLES OF BOOTS AND SHOES.

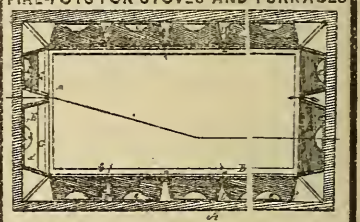


113,547, JOHN O. MERRIAM.
PACKING PISTONS OF STEAM-ENGINES, &c.

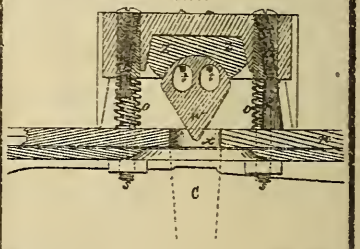
113,548, CHARLES W. MILLS.
FOLDING TABLE-TOPS.



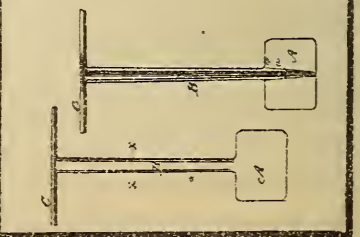
113,549, EDWARD MINGAY.
FIRE-POTS FOR STOVES AND FURNACES



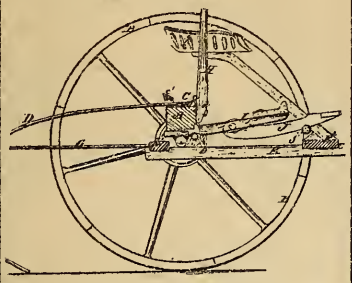
113,550, WM. MORRISON.
CORN-PLANTERS.



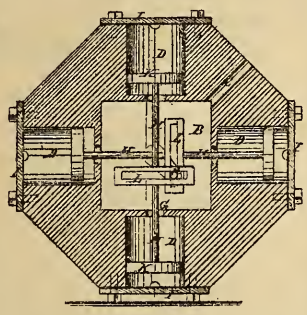
113,551 F. B. MORSE.
CARRIAGE-STEPS.



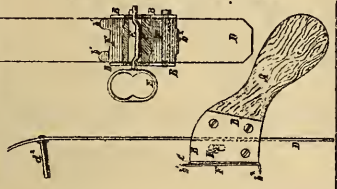
113,552, WILLIAM A. MYERS.
HORSE HAY-RAKES.



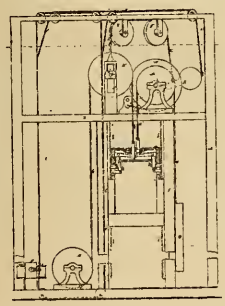
113,553 NATHAN E. NASH,
STEAM-ENGINES.



113,554, MATTHEW NEWLOVE.
WEATHER-BOARD GAUGES.

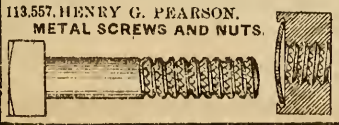


113,555, CHAS. R. OTIS.
NORTON P. OTIS.
HOISTING APPARATUS.

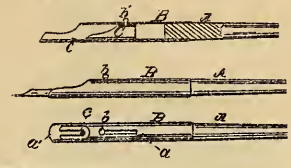


113,556, DANL. E. PARIS.
COOKING-STOVES.

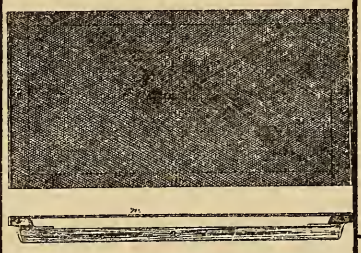
113,557, HENRY G. PEARSON.
METAL SCREWS AND NUTS.



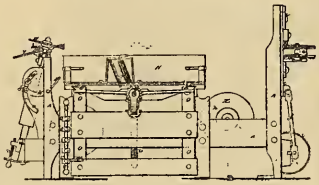
113,558, OLIVER A. PENNOYER.
PEN-HOLDERS.



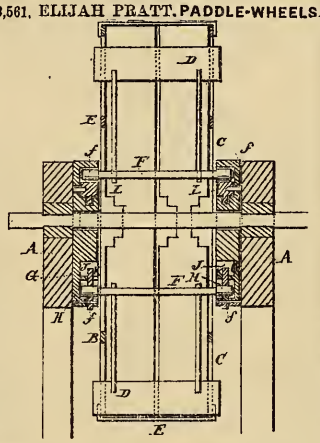
113,559, GEORGE C. PERKINS.
FRAMES FOR WIRE-MATTRESSES.



113,560, DAVID POMEROY.
DOVETAILING-MACHINES.

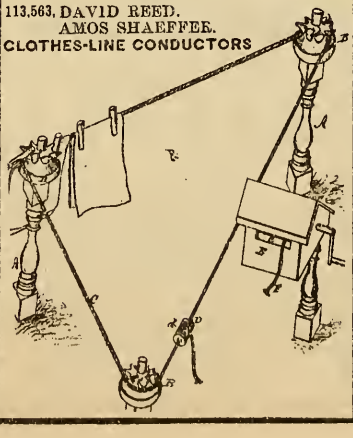


113,561, ELIJAH PRATT, PADDLE-WHEELS.

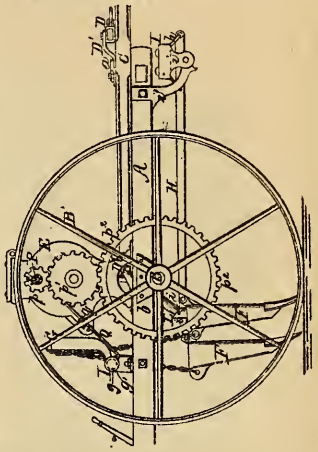


113,562, WILLIAM J. RAND, JR.
ARTICLES FOR FOOD FROM
ALGÆ OR SEA-MOSSES.

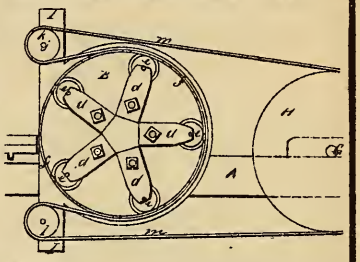
113,563, DAVID REED.
AMOS SHAEFFER.
CLOTHES-LINE CONDUCTORS



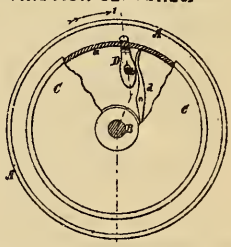
113,564, DANIEL RENTCHLER.
GRAIN-DRILLS.



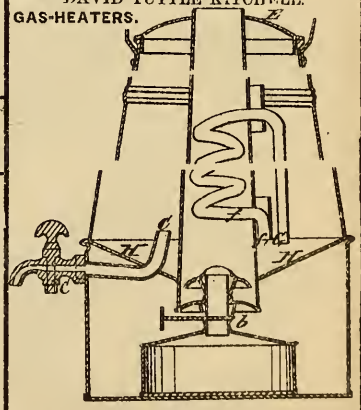
113,565, ASSARIA REWRICK.
MACHINES FOR SAWING STAVES.



113,566, GEORGE S. REYNOLDS.
FRICTION-CLUTCHES.



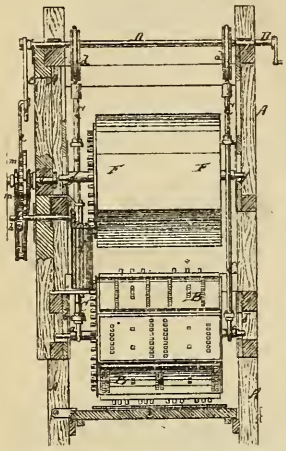
113,567, ORLANDO McKNIGHT REYNOLDS
DAVID TUTTLE KITCHELL.
GAS-HEATERS.



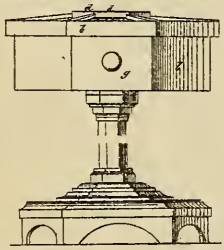
113,568, JOSEPH H. RIGGS.
WHIFFLETREES.

113,569, JOSEPH A. ROBBINS.
MEDICAL COMPOUNDS.

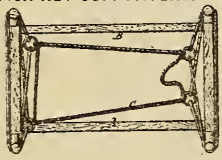
113,570, CHARLES ROMMEL.
OIL-CLOTH PRINTING-MACHINES.



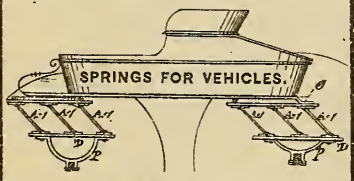
113,571, JOHN J. ROSS, D. D. S.
DENTISTS' INSTRUMENT-STANDS.



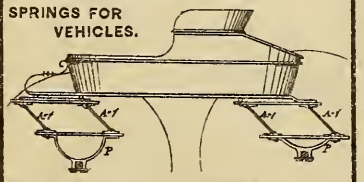
113,572, BENJAMIN RYDER, Jr.
FISH-NET SUPPORTERS.



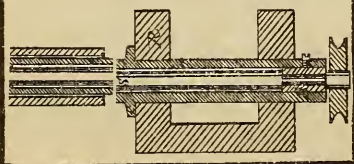
113,573, CYRUS W. SALADEE.
SPRINGS FOR VEHICLES.



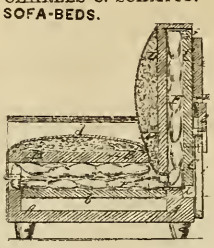
113,574, CYRUS W. SALADEE.
SPRINGS FOR VEHICLES.



113,575 JACOB H. SAWYER.
RING-SPINNING MACHINES.



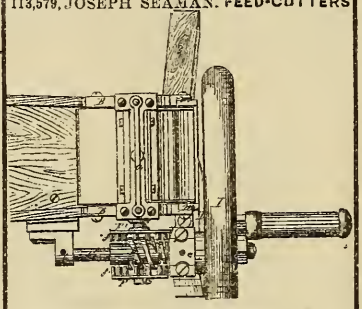
113,576, CHARLES O. SCHMITT.
SOFA-BEDS.



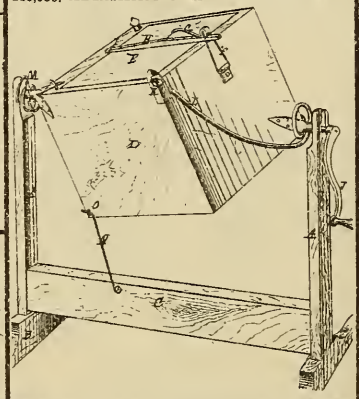
113,577, G. A. SCHULTZ. BUTTONS.

113,578, THEODORE SCHWARTZ.
KINDLING MATERIALS.

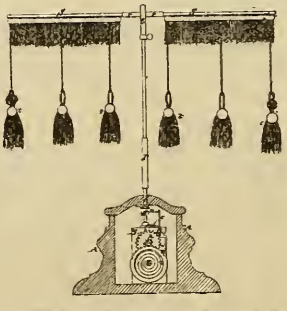
113,579, JOSEPH SEAMAN. FEED-CUTTERS



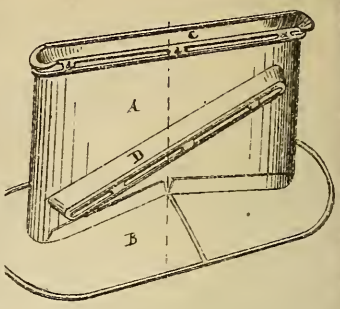
113,580, ABRAHAM SHAFFER. CHURNS.



113,581, DAVID SHANKLAND.
EMERSON B. HOPKINSON.
FLY-BRUSHES

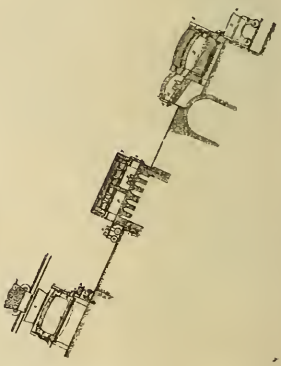


113,582, JOHN H. SIEBCKE.
WASH-BOILERS.

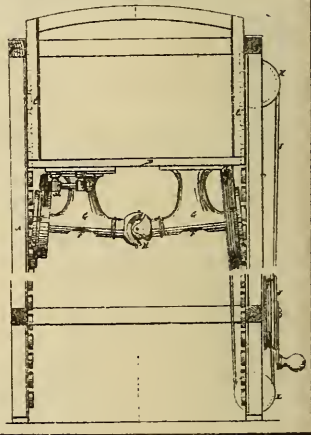


113,583, ALEXANDER H. SIEGFRIED.
REFINING IRON AND STEEL.

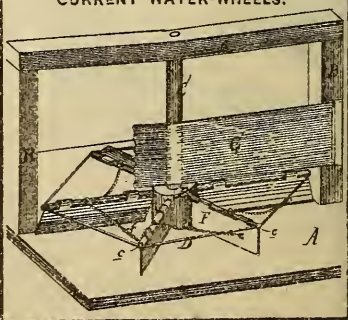
113,584, C. WILLIAM SIEMENS.
PROCESSES AND APPARATUS FOR THE PRODUCTION OF CAST-STEEL FROM ORES.



113,585, THOMAS SILVER.
HOISTING APPARATUS.



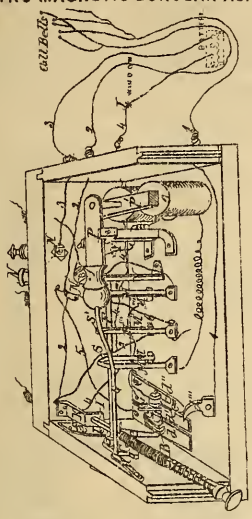
113,586, HEMAN B. SINCLAIR.
CURRENT WATER-WHEELS.



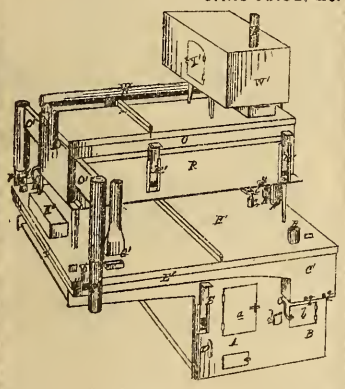
113,587, FRED. J. SLADE.
MANUFACTURE OF STEEL.

113,588, JACOB H. SMYSER.
ROOFING-COMPOSITIONS.

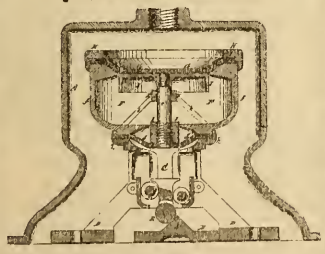
113,589, JAMES P. SNYDER.
ELECTRO-MAGNETIC BURGLAR-ALARMS



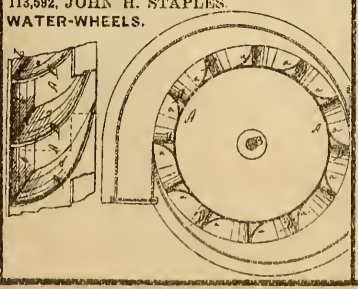
113,590. EBENEZER SPERRY.
APPARATUS FOR EVAPORATING CANE-JUICE, &c.



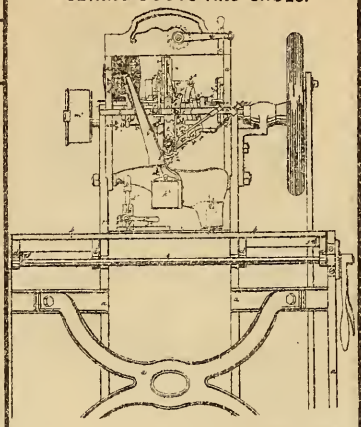
113,591, D. B. SPOONER.
LIQUID AND GAS-METERS.



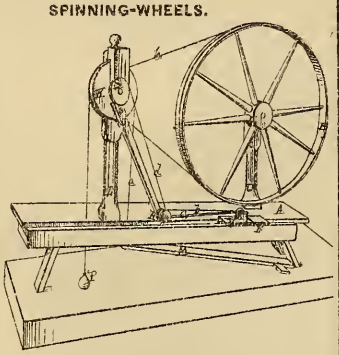
113,592, JOHN H. STAPLES.
WATER-WHEELS.



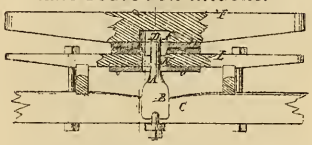
113,593, MICHAEL J. STEIN.
SEWING BOOTS AND SHOES.



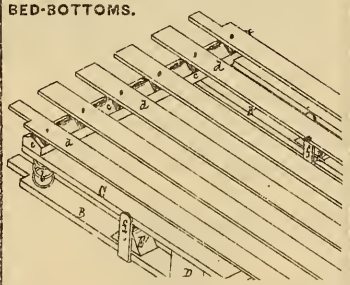
113,594, JOSEPH STRAIN.
SPINNING-WHEELS.



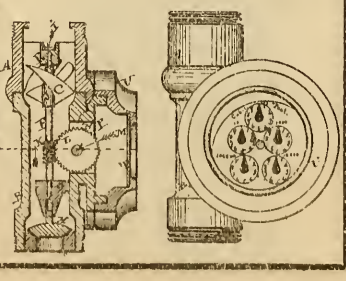
113,595. LEE T. SWARTWOUT.
KING-BOLTS FOR WAGONS.



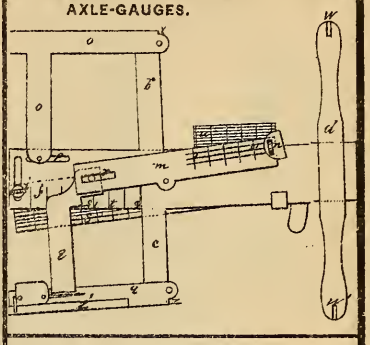
113,596. JOSEPH TINNEY.
BED-BOTTOMS.



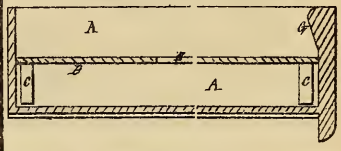
113,597 WILLIAM VAN ANDEN.
WATER-METERS.



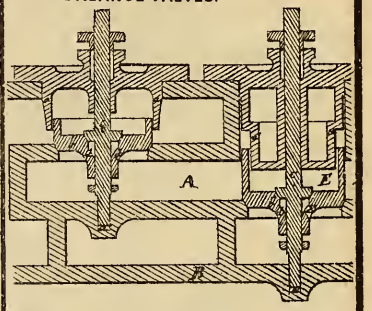
113,598, RICHARD K. VESTAL.
AXLE-GAUGES.



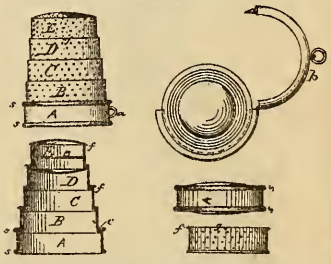
113,599, ERNEST VON JEINSEN.
JAMES M. McDONALD.
OIL-RESERVOIRS FOR AXLE-BOXES.



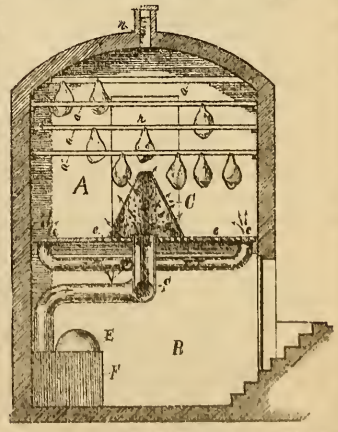
113,600. ALEXANDER WANICH.
BALANCE-VALVES.



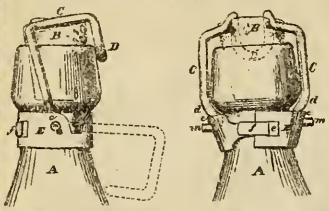
113,601, WILLIAM A. WANSLEBEN.
COMBINED THIMBLES AND LOCKETS.



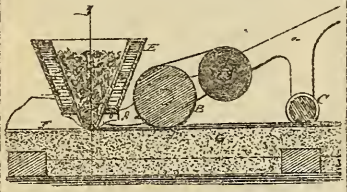
113,602, ASA WATERMAN.
SMOKE-HOUSES.



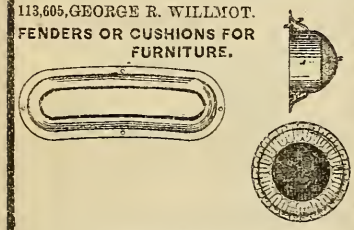
113,603, EPHRAIM D. WEATHERBEE.
BOTTLE-FASTENINGS.



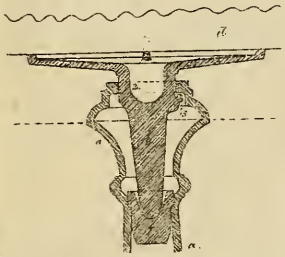
113,604, JAY J. WIGGIN.
MACHINES FOR THE MANUFACTURE OF COMPOSITION-ROOFING.



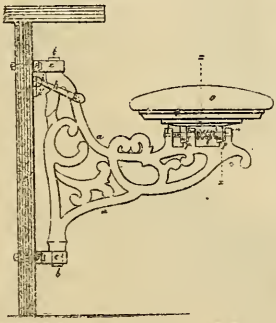
113,605, GEORGE R. WILLMOT.
FENDERS OR CUSHIONS FOR FURNITURE.



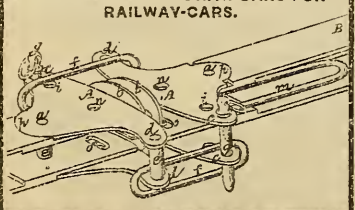
113,606, JOHN J. WILSON.
PIVOTS FOR SEATS.



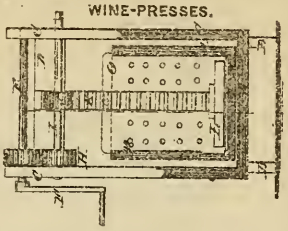
113,607, JOHN J. WILSON.
BRACKET SEATS.



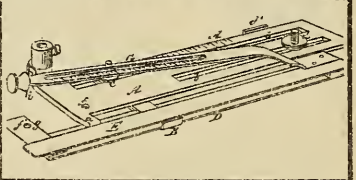
113,608, JOHN T. WILSON.
BUFFER-HEADS AND DRAW-BARS FOR RAILWAY-CARS.



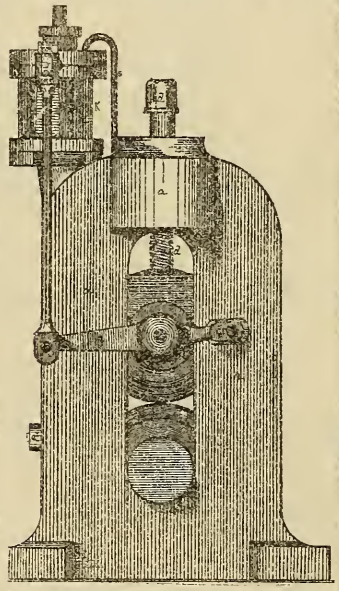
113,609, ABRAHAM F. WYKER.
WINE-PRESSES.



113,610, ENOCH S. YENTZER.
ATTACHMENTS FOR SEWING-MACHINES.

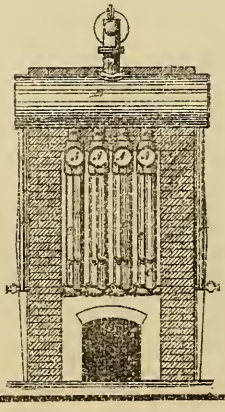


113,611, CHRISTOPHER ZUG.
MACHINES FOR SCRAPING IRON.



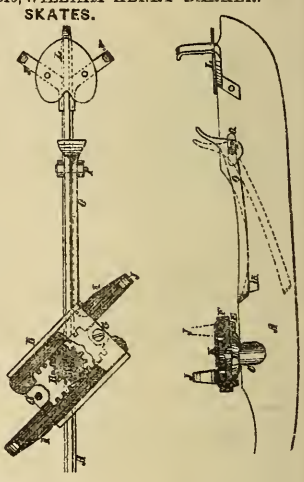
113,612 ISAAC ADAMS, JR.
ELECTROPLATING WITH NICKEL.

113,613, JOHN F. ALLEN.
STEAM-GENERATORS.

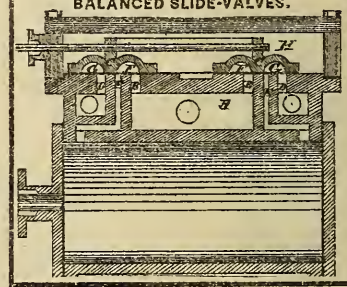


113,614, WM. AUSTIN.
WM. OBDYKE.
PIPE-ELBOWS.

113,615, WILLIAM HENRY BARKER.
SKATES.

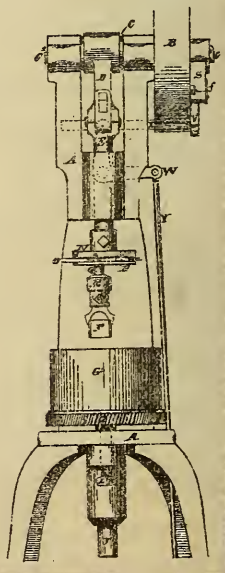


113,616, ALBERT G. BARRETT.
BALANCED SLIDE-VALVES.

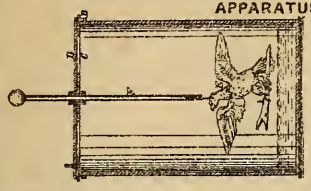


113,617, DR. BENJAMIN BATES.
ROOT OR TONIC BEER.

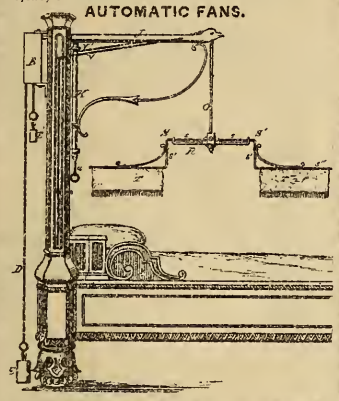
113,618, HORACE B. BIGELOW.
MACHINES FOR CUTTING LEATHER.



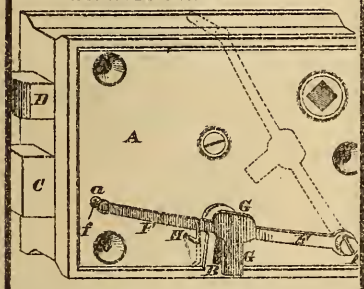
113,619, OTTO BOLDEMANN.
PERFUMING AND DISINFECTING APPARATUS.



113,620, GEORGE C. BOVEY.
AUTOMATIC FANS.

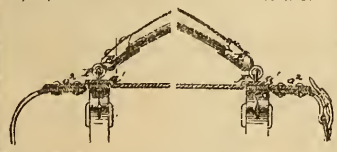


113,621, GEORGE C. BOVEY.
KEY-HOLE GUARDS.

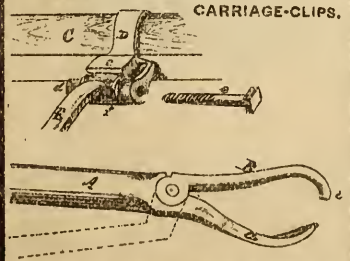


113,622, HENRY BRAUNHOLD.
CASKS FOR PASTE.

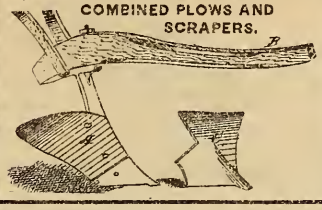
113,623, G. B. BROAD. SHAWL-STRAPS.



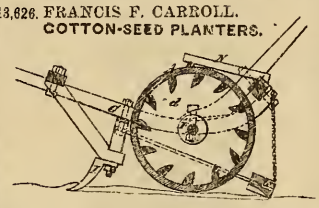
113,624, THOMAS H. BROWN.
CHAS. E. GILMAN.
APPARATUS FOR COMPRESSING AND INSERTING RUBBER BLOCKS INTO CARRIAGE-CLIPS.



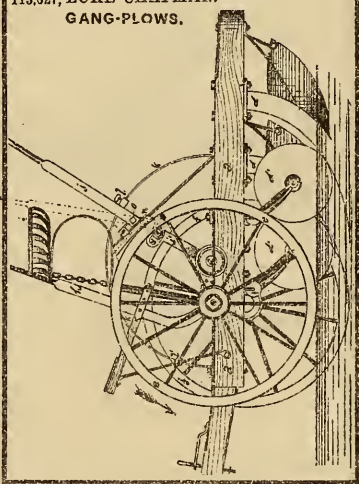
113,625, JOHN CHARLES CAMERON.
COMBINED PLOWS AND SCRAPERS.



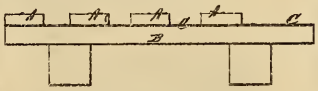
113,626, FRANCIS F. CARROLL.
COTTON-SEED PLANTERS.



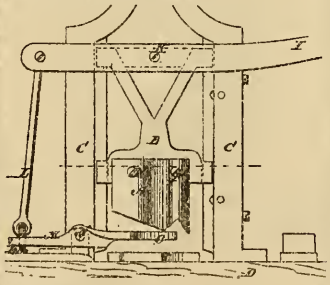
113,627, LUKE CHAPMAN.
GANG-PLOWS.



113,628, JOHN CIPPERLEY.
MASTIC ROOFING.



113,629, JAMES W. CLARK.
PICKET-CUTTERS.



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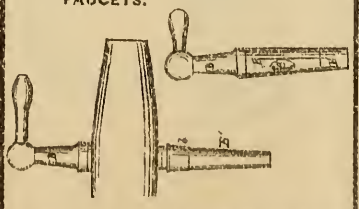
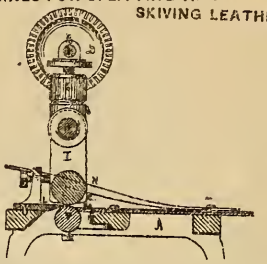
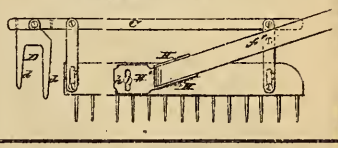
HENRY W. TRISSLER.
WALTER D. TRISSLER.
FAUCETS.



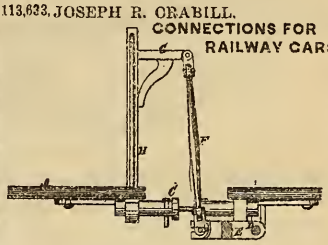
113,631, ALEXANDER COCHRAN.
MACHINES FOR SPLITTING AND SKIVING LEATHER.



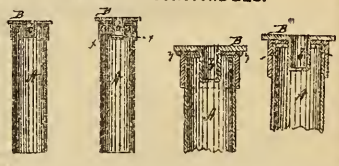
113,632, O. B. COLCORD.
HARVESTER-RAKES.



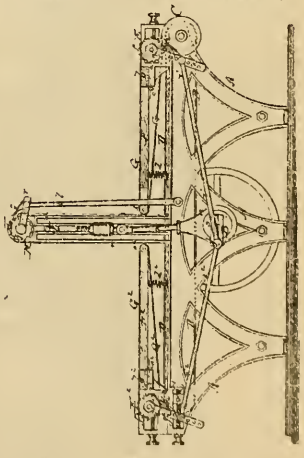
113,633, JOSEPH R. CRABILL.
CONNECTIONS FOR RAILWAY CARS.



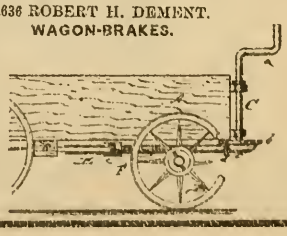
113,634, SILAS CRISPIN.
METALLIC CARTRIDGES.



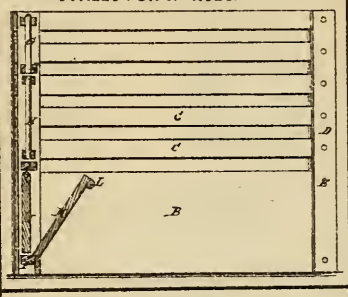
113,635, WILLIAM EDWARD DAMANT.
MACHINES FOR CUTTING LOZENGES, &c.



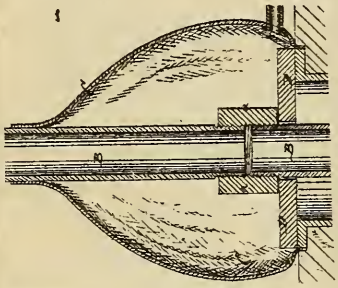
113,636 ROBERT H. DEMENT.
WAGON-BRAKES.



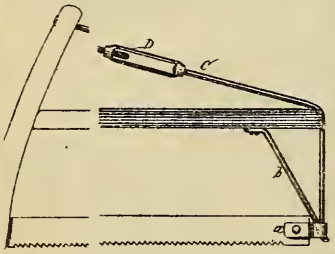
113,637 DANIEL M. DENISON
STALLS FOR HORSES.



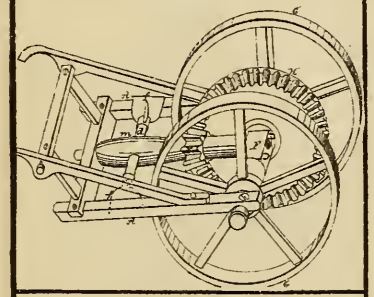
113,638, WILLIAM W. DEWEY.
ATTACHMENTS TO OIL-WELL TUBING.



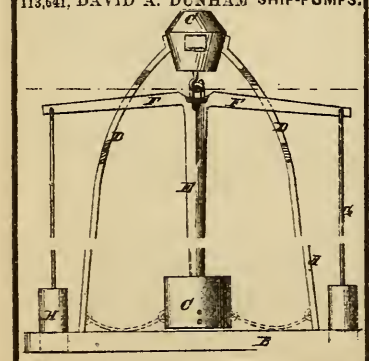
113,639, JEROME C. DIETRICH.
BUCK-SAW FRAMES.



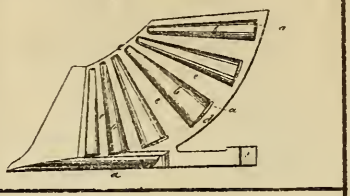
113,640. CHARLES BRYANT DOUGLAS.
COTTON-CHOPPERS.



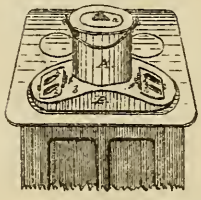
113,641, DAVID A. DUNHAM SHIP-PUMPS.



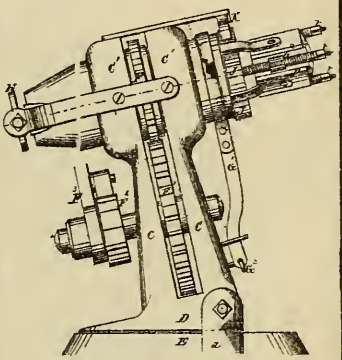
113,642. ISAAC T. DYER.
MOLD-BOARDS FOR PLOWS.



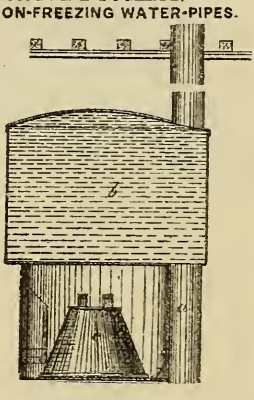
113,643, JAMES EASTERLY.
COOKING-STOVES.



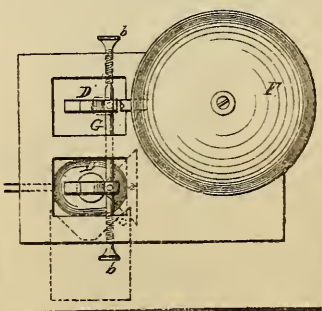
113,644, DAVID J. FARMER.
NAIL AND TACK-PLATE FEEDERS.



113,645, VALENTINE FOGERTY.
NON-FREEZING WATER-PIPES.



113,646, WM. FOSTER, JR.
PNEUMATIC SIGNALING APPARATUS.



113,647, WM. FOSTER, JR.
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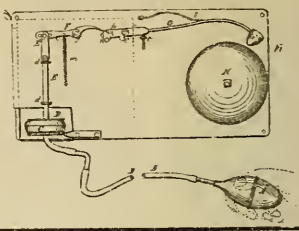
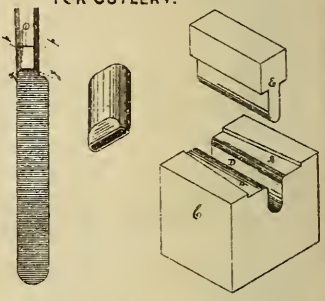
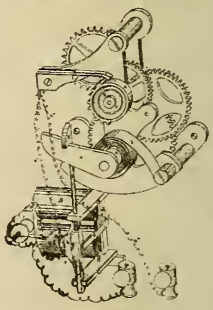


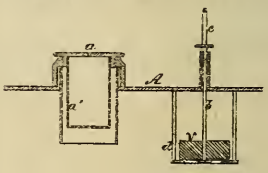
113,648. JAMES D. FRARY.
MANUFACTURE OF BOLSTERS FOR CUTLERY.



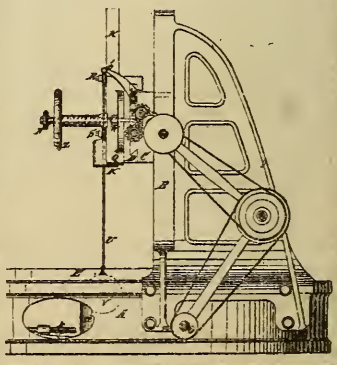
113,649. JOHN N. GAMEWELL
FIRE-ALARM TELEGRAPH APPARATUS.



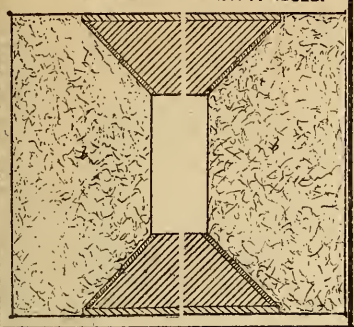
113,650. HENRY J. GOFF.
COMBINED LAMPS AND REFLECTORS.

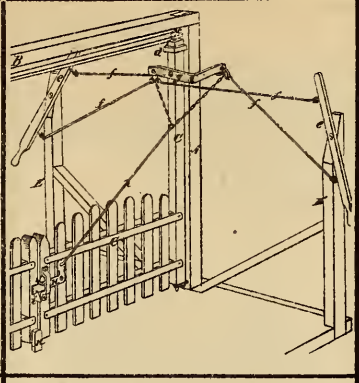


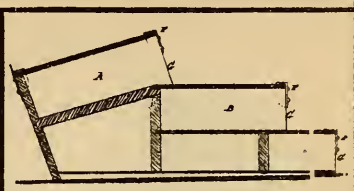
113,651, G. A. GRAY, JR.
TURNING AND BORING-MILLS.



113,652, J. DURELL GREENE.
LIFE-PRESERVING MATTRESSES.







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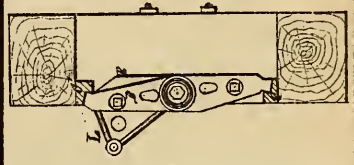
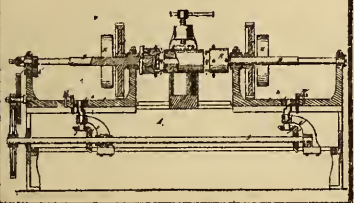
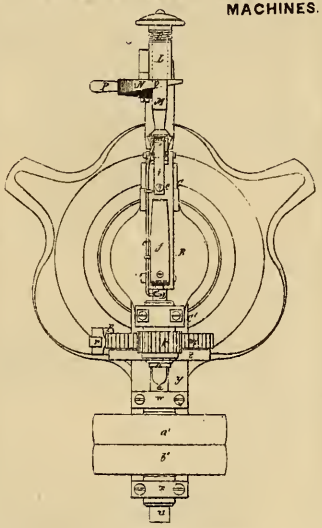
CANAL-LOCK VALVES.



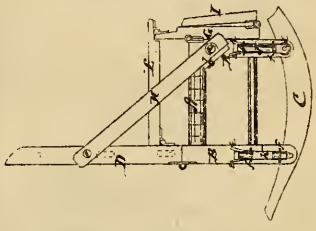
113,653, JOHN GRIFFITH.
G. W. WUNDRAM.
MACHINES FOR FACING T-HEADS.



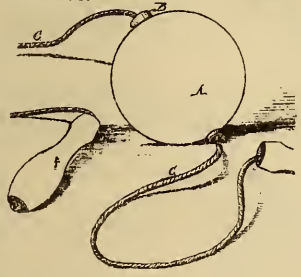
113,658 GARDNER C. HAWKINS
ALBERT G. MEAD.
KIMBALL SPEAR,
BOOT AND SHOE HEEL BURNISHING MACHINES.



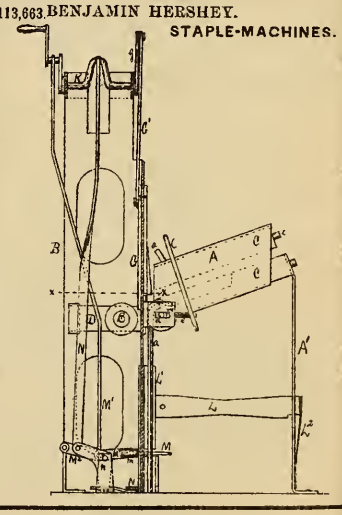
113,662, GABRIEL D. HEATWOLE.
CHAIRS AND BEDS COMBINED.



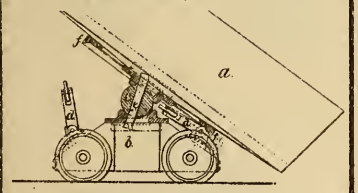
113,654, JOHN HAMILTON HARBISON.
TOYS.



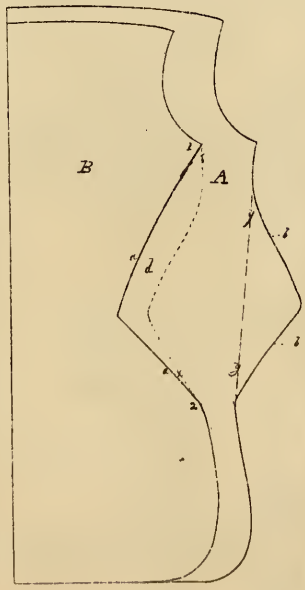
113,663, BENJAMIN HERSHEY.
STAPLE-MACHINES.



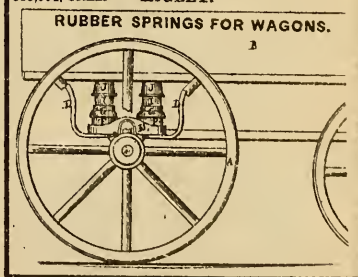
113,655, WILLIAM HENRY HARDING.
GEORGE FREDERIC MORSE.
DUMPING-CARS.



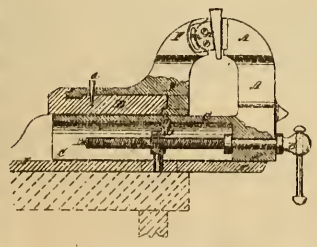
113,659, JAMES HAYDEN.
SHIRTS.



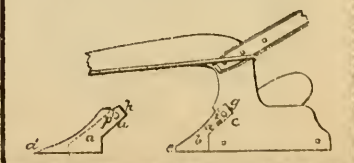
113,664, AARON HIGLEY.
RUBBER SPRINGS FOR WAGONS.



113,656, WILLIAM P. HARWOOD.
VISES.



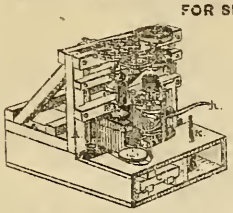
113,665, G. W. HILDRETH.
ATTACHING PLOW-POINTS.



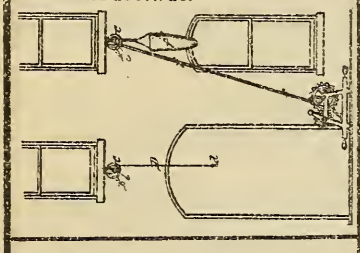
113,657, HENRY P. HASKIN.
FARM-GATES.

113,660, GEORGE A. HEARN, JR.
SHOW-CASES.

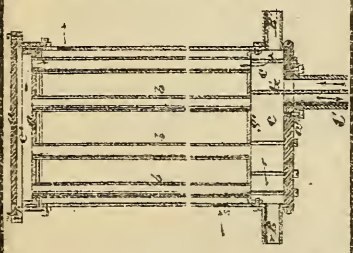
113,666, GEORGE M. HINKLEY.
MACHINES FOR SAPPING TIMBER FOR SHINGLES.



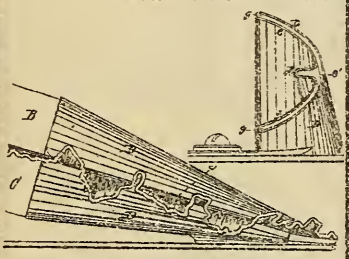
113,667, JOSEPH HOEFLINGER.
FIRE-ESCAPES.



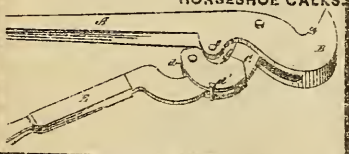
113,668, BIRDSILL HOLLY.
SURFACE-CONDENSERS.



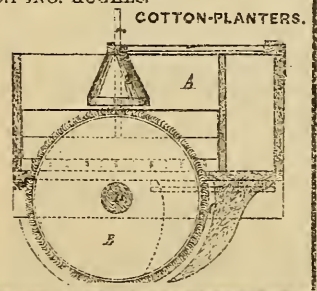
113,669, ELIJAH LEAVITT HOWARD.
RUFFLE-GUIDES AND BAND-FOLDERS FOR SEWING-MACHINES.



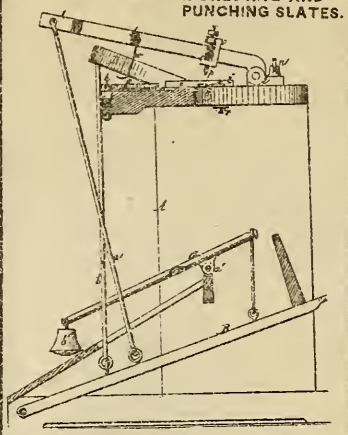
113,670, HAMILTON HOWELL
MACHINES FOR SHARPENING HORSESHOE CALKS.



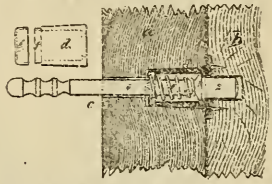
113,671 JNO. HUGHES.
COTTON-PLANTERS.



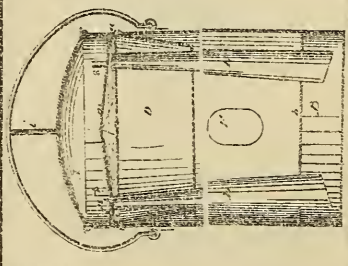
113,672, JULIUS JAEGER.
MACHINES FOR DRESSING AND PUNCHING SLATES.



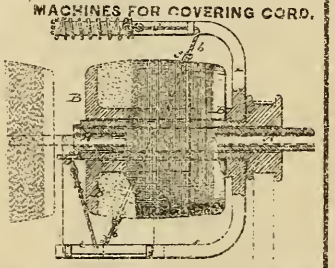
113,673 MORTON JUDD SASH-HOLDERS.



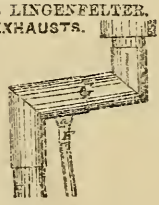
113,674, RICHARD H. KUPER.
COFFEE-POTS.



113,675, REUBEN LEWIS.
MACHINES FOR COVERING CORD.

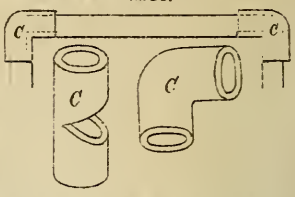


113,676, JACOB LINGENFELTER.
MILLSTONE EXHAUSTS.



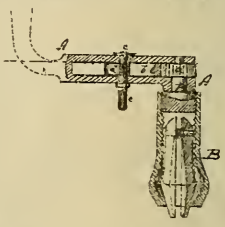
113,677, CHAS. W. LOVETT, JR.
SHOT-CARTRIDGES.

113,678, PETER LUGENBELL.
WILLIAM A. FORD.
SLATE-FRAMES.

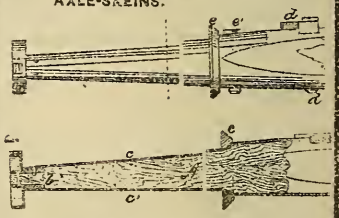


113,679, JOHN J. LUNDY.
LUBRICATING WOOL DURING THE PROCESS OF MANUFACTURE.

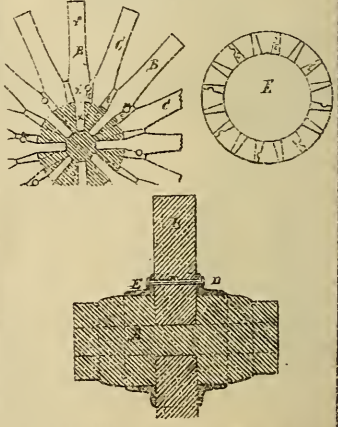
113,680, JOHN T. LYNAM. BIT-BRACES.



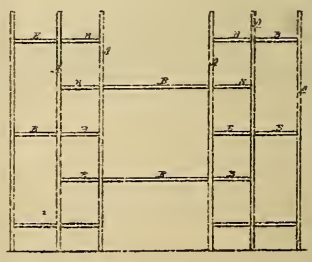
113,681, ORENZO MAYHEW.
AXLE-SKEINS.



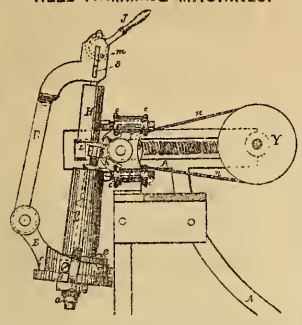
113,682, ROBERT W. McCLELLAND.
WHEELS FOR VEHICLES.



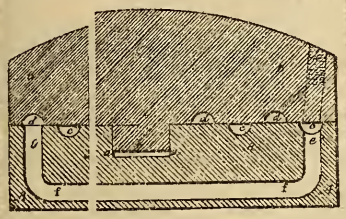
113,683, SOPHIA H. MERCER.
EXTENSIBLE SHELVING.



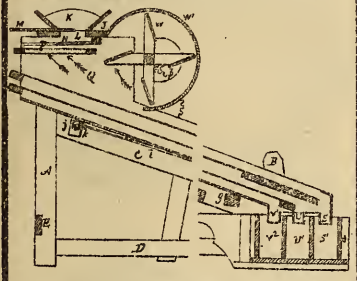
113,684 JOHN Q. MOULTON.
HEEL-TRIMMING MACHINES.



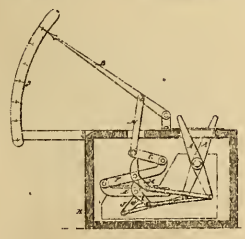
113,685, JOHN W. MURPHY
LUBRICATING PIVOTS FOR TURN-TABLES.



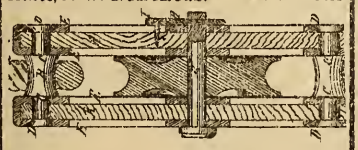
113,686, MOSES T. NESBITT.
MACHINES FOR CLEANING GRAIN.



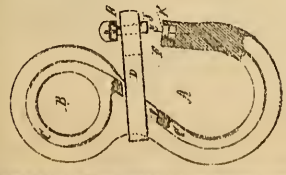
113,687, ARCHIBALD NIMMO.
MECHANICAL MOVEMENTS.



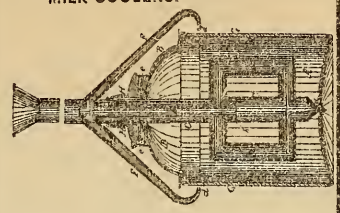
113,688, J. W. NORCROSS, PULLEY-BLOCKS



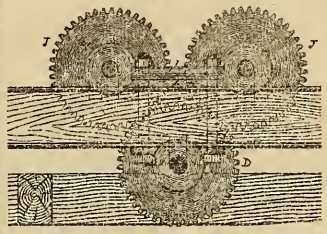
113,689, JOSEPH W. NORCROSS.
TACKLE-HOOKS.



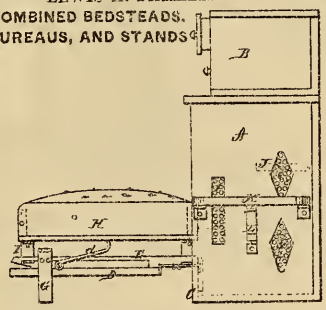
113,690 ALBERT NORTHROP.
MILK-COOLERS.



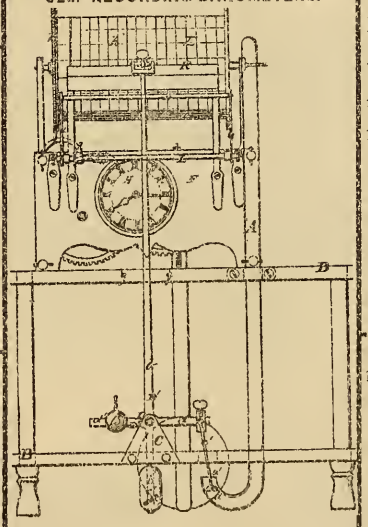
113,691, JASON C. OSGOOD.
EXCAVATORS.



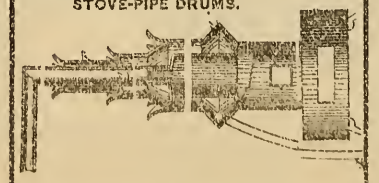
113,692, ANNA PARKER.
LEWIS A. PARKER.
COMBINED BEDSTEADS, BUREAUS, AND STANDS.



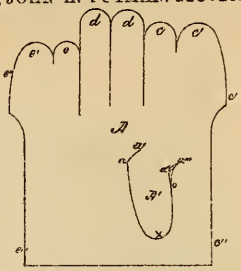
113,693, DAVID PEELOR.
SELF-RECORDING BAROMETERS.



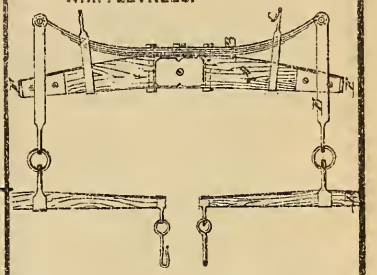
113,694, WILLIAM L. PHILLIPS.
STOVE-PIPE DRUMS.



113,695, JOHN H. PUTMAN. GLOVES.

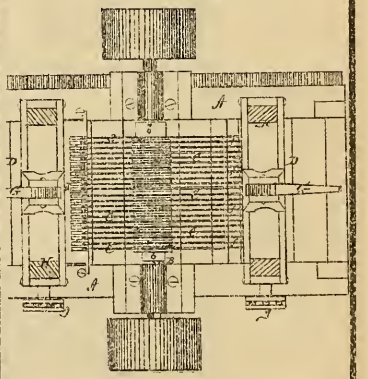


113,696 SAMUEL L. REYNOLDS.
JOHN W. REYNOLDS.
WHIFFLETREES.

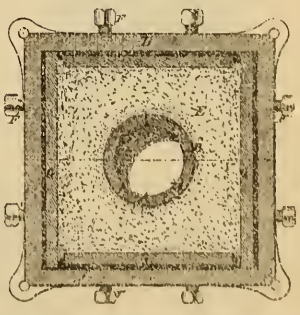


113,697, GEORGE RUMSEY.
SLIDING-DOOR HANGERS.

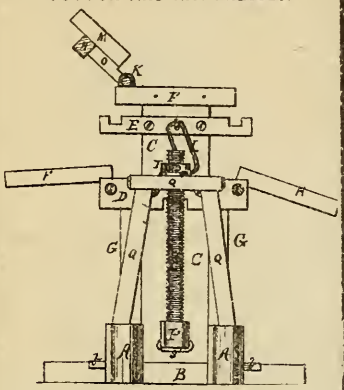
113,698, SAML. S. SHERMAN.
H. B. GUNN.
SAWING-MACHINES.



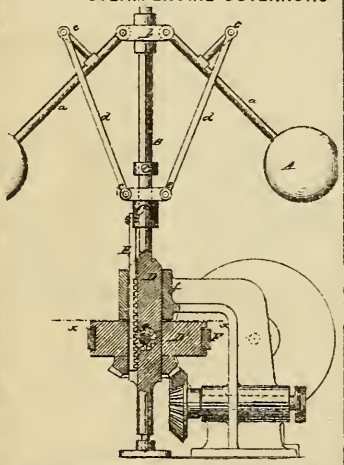
113,699, JOHN JOS. CHAS. SMITH.
DIES FOR TAKING IMPRESSIONS FROM CLOTH, &c.



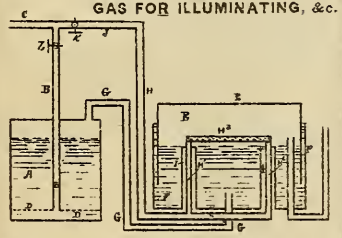
113,700. REUBEN STALLINGS.
COTTON AND HAY-PRESSES.



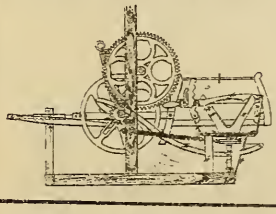
113,701, SAML. STANTON.
VARIABLE ECCENTRICS FOR STEAM-ENGINE GOVERNORS



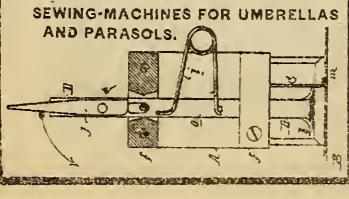
113,702. J. W. STOW.
MANUFACTURE OF PNEUMATIC GAS FOR ILLUMINATING, &c.



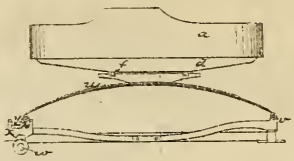
113,703. JEROME B. SWEETLAND.
SAWING-MACHINES.



113,704. WM. J. TATE.
SEWING-MACHINES FOR UMBRELLAS AND PARASOLS.

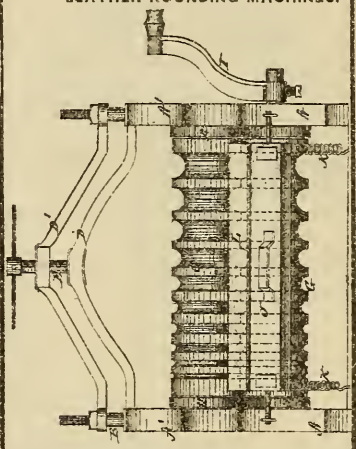


113,705, CHAUNCEY THOMAS
CARRIAGES.

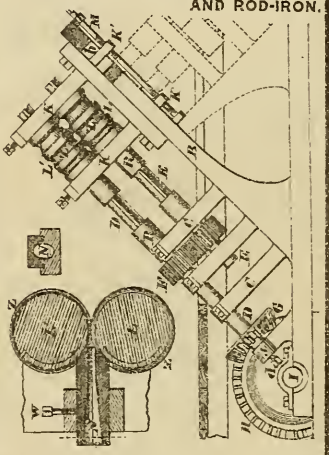


113,706. NATHAN H. THOMAS.
PRESERVING WOOD.

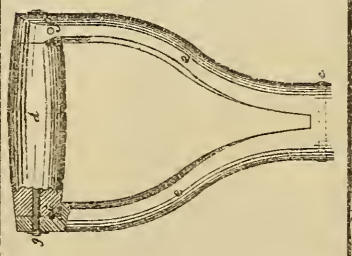
113,707, JAMES H. TIZZARD.
LEATHER-ROUNDING MACHINES.



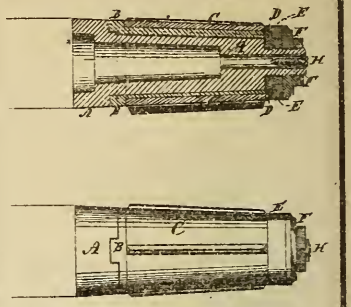
113,708 JAMES TRANTER.
JOSEPH KINSEY.
ROLLS FOR ROLLING HOOP, BAR, AND ROD-IRON.



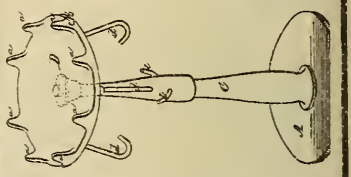
113,709, HENRY C. TRASK.
SHOVEL-HANDLES.



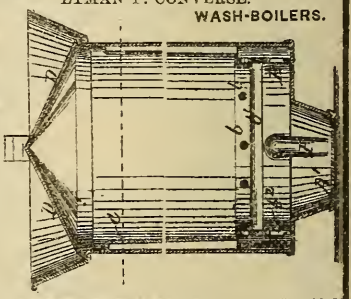
113,710, JAMES MONROE WALTERS.
WAGON-SPINDLES.



113,711. STEWART WATT.
STOVE UTENSIL-HOLDERS.

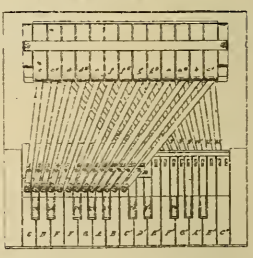


113,712, W. A. WELLS.
LYMAN P. CONVERSE.
WASH-BOILERS.

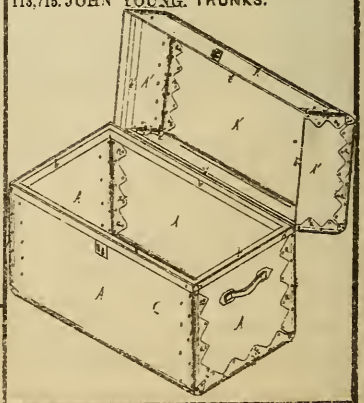


113,713, SAMUEL R. WHITLOW.
MEDICAL COMPOUNDS OR BITTERS

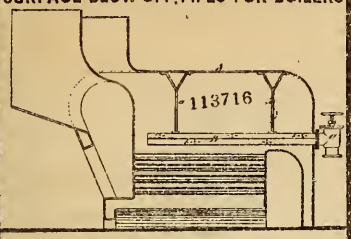
113,714, GEORGE W. WOODRUFF.
REED-ORGANS.



113,715. JOHN YOUNG. TRUNKS.



113,716, JAMES PERKINS.
SURFACE BLOW-OFF PIPES FOR BOILERS



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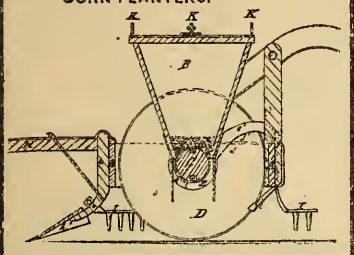
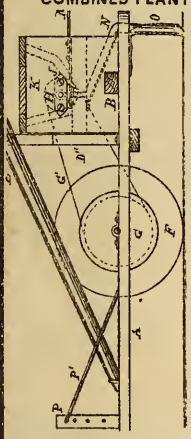
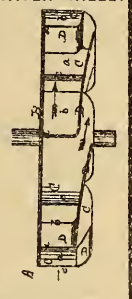
CORN-PLANTERS.



113,718, SAMUEL HIESTAND.
COMBINED PLANTERS AND SEEDERS.

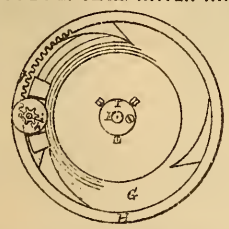


4,329,
JOEL T. CASE.
WATER-WHEELS

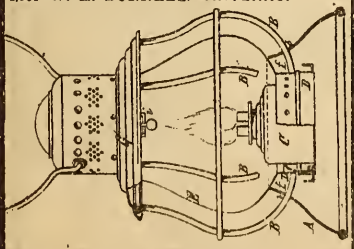


4,328 JOSEPH ALBERT.
PRINTING PHOTOGRAPHS.

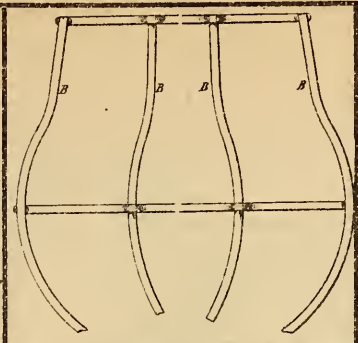
4,330, JOEL T. CASE. WATER-WHEELS.



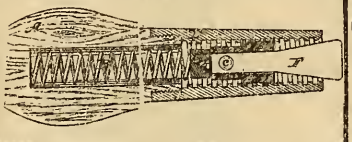
4,331 W. H. BONNELL. LANTERNS.



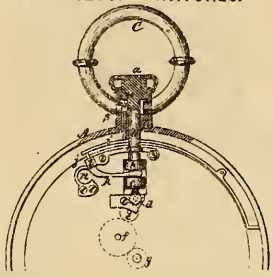
4,332, W. H. BONNELL. LANTERNS.



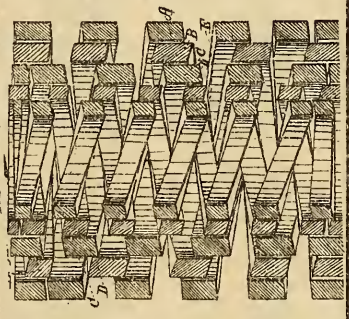
4,333, WILLIAM W. DRAPER.
TOOL-HOLDERS.



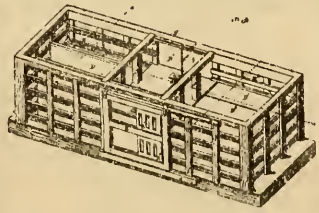
4,334, JULES JÜRGENSEN.
STEM-SETTING WATCHES.



4,335, ALBERT HEBBARD.
JNO. P. ONDERDONK.
CAR-SPRINGS



4,336, LEE SWEARINGEN. STOCK-CARS.



4,337 JOHN S. PATRIC,
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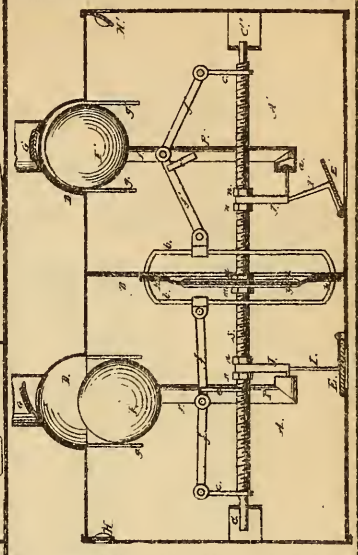

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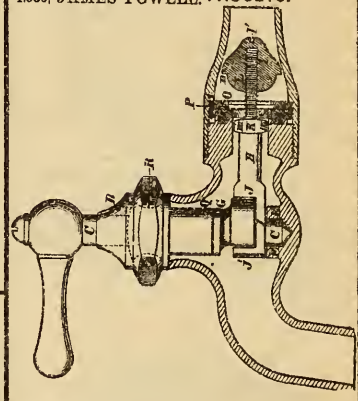

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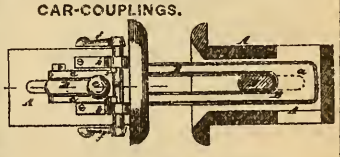

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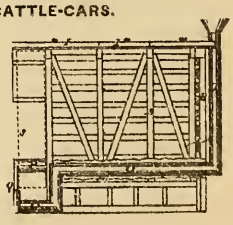

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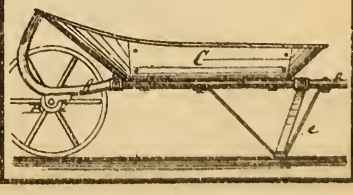

ILLUSTRATIONS OF PATENTS

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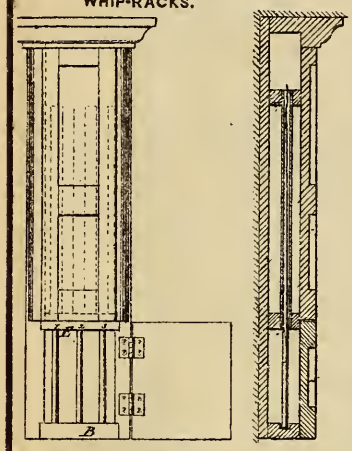
APRIL 18, 1871.

113,719, ROBERT J. ANDERSON.
WHIP-RACKS.



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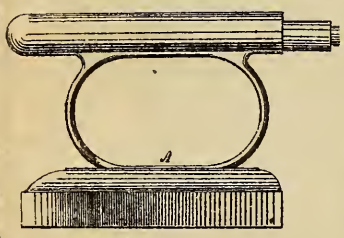

113,721, ALBERT BAKER
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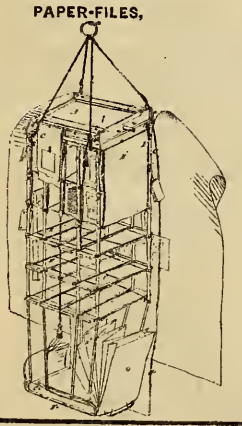

113,722, ISAAC T. BAKER.
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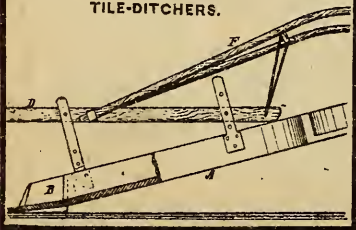

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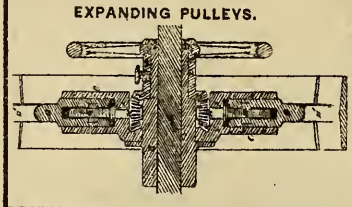

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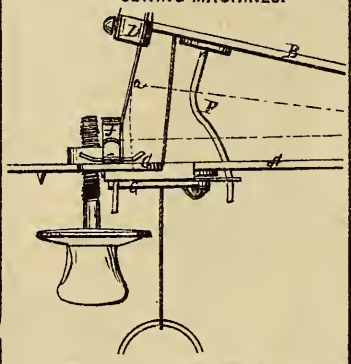

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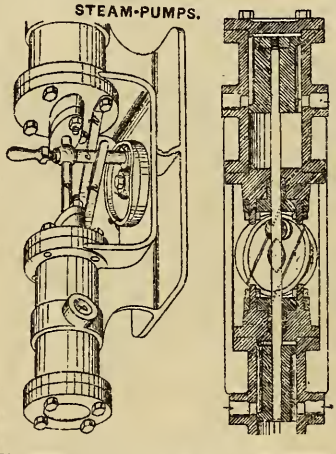

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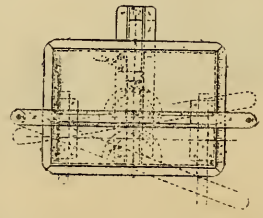

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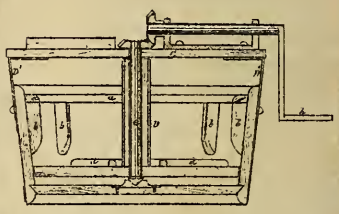

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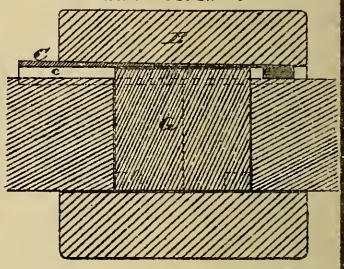

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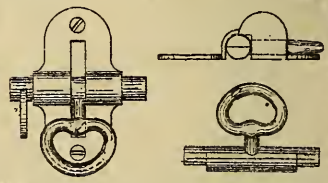

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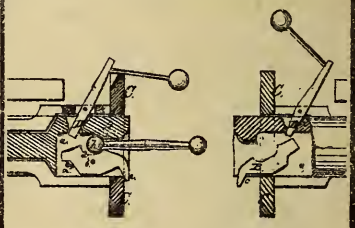

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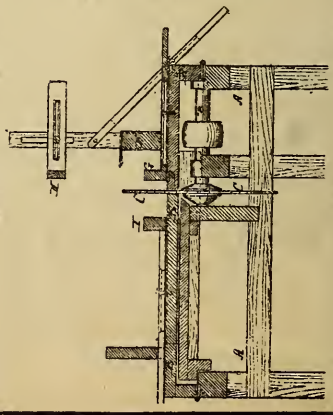
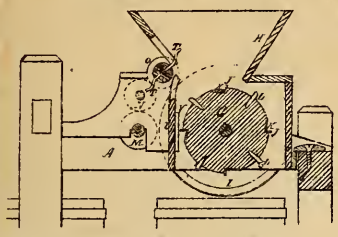
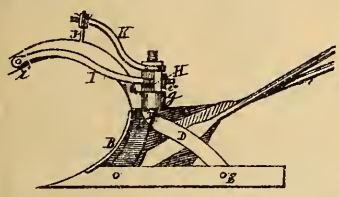
TENONING-MACHINES.



113,732. JESSE BOWEN.
AARON T. FOSTER. CIDER-MILLS.

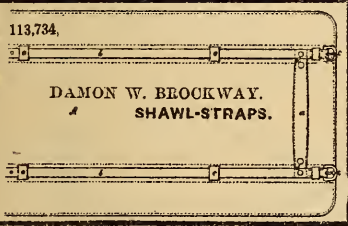


113,733. WALTER BRITTON. PLOWS

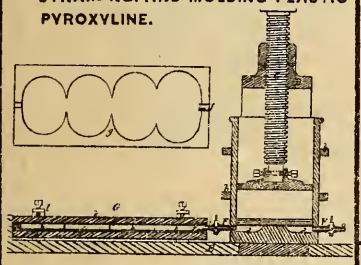


113,734.

DAMON W. BROCKWAY.
SHAWL-STRAPS.



113,735. JOSEPHUS BROCKWAY.
APPARATUS FOR COMPRESSING, STRAINING, AND MOLDING PLASTIC PYROXYLINE.



113,736. JOSEPHUS BROCKWAY.
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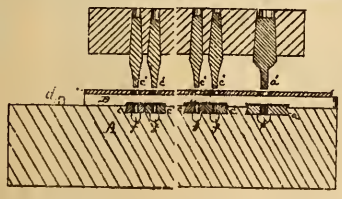
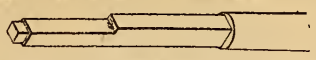
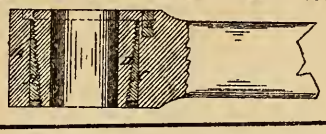
113,737. PETER BROOKS. MACHINES FOR PUNCHING CORSET-SPRINGS.



113,738. LEVERETT BROWN.
THE MODES OF ATTACHING TOPMASTS AND TOP-GALLANT-MASTS.



113,739. M. C. BULLOCK.
SELF-CENTERING BOXES OR BEARINGS.



113,740. JAMES M. CARPENTER.
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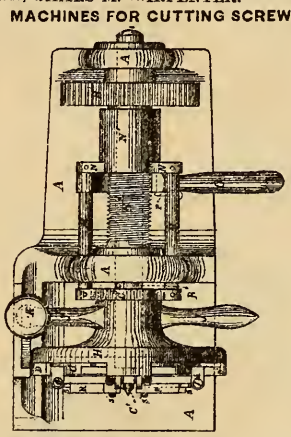
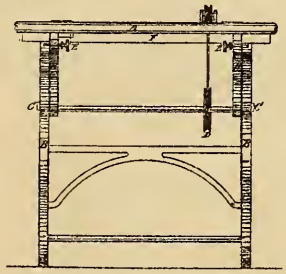
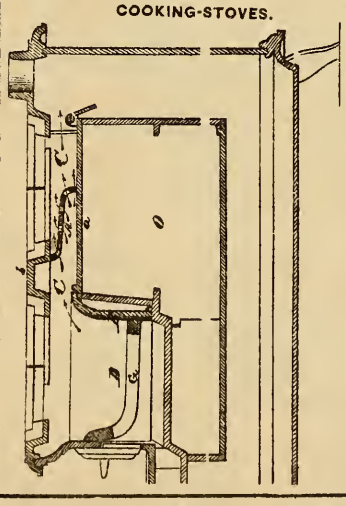


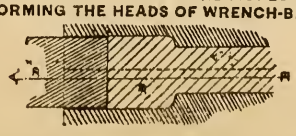
113,741. EDWIN CHESTERMAN. TABLES FOR SEWING AND KNITTING-MACHINES



113,742. FRANKLIN CLEMENT.
COOKING-STOVES.



113,743. AURY G. COES. THE MODES OF FORMING THE HEADS OF WRENCH-BARS



113,744. ALFRED B. COUCH.
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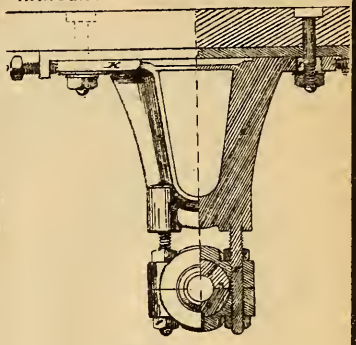

113,745. HENRY DAVIES.
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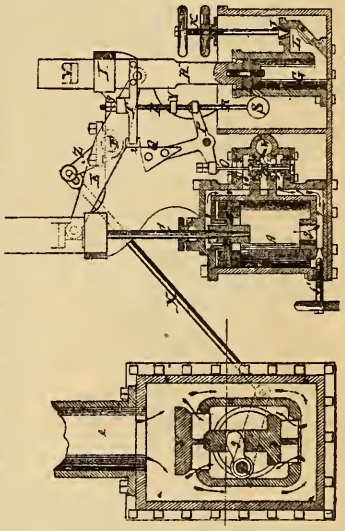

113,746. JAMES DECKER.
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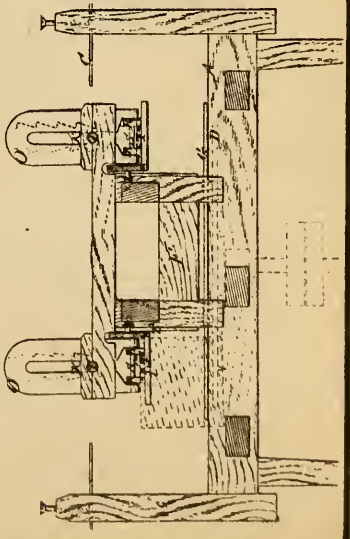

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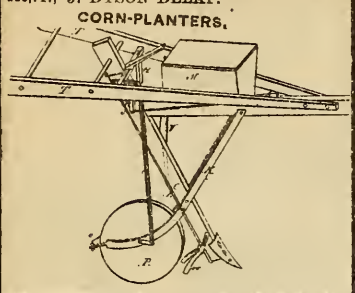

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113,749, MARTIN N. DIAL.
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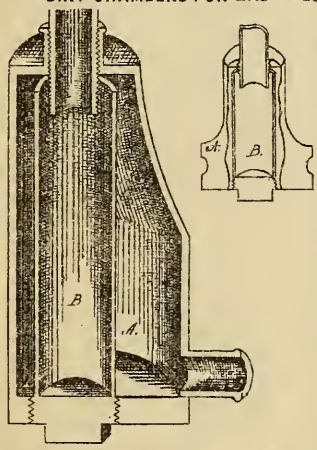

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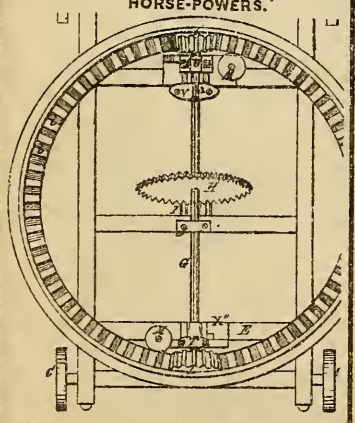

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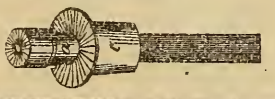

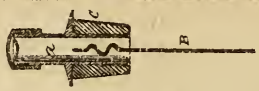

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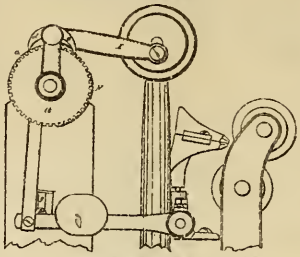

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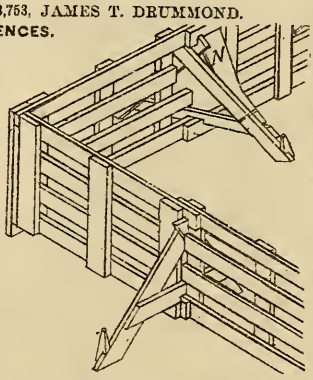

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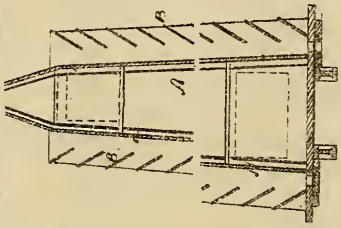

113,755, ALONZO FARRAR.
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113,756, JOHN FOGARTY.
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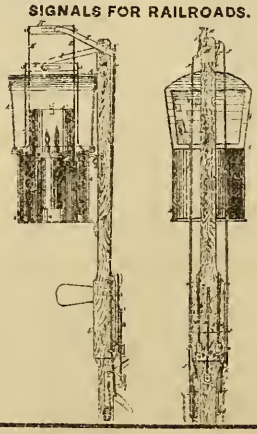

113,757, WILLIAM H. GARRETT.
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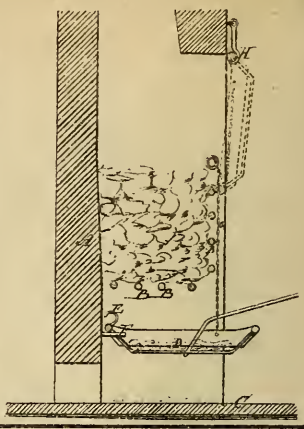

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113,759, THOMAS J. GIFFORD.
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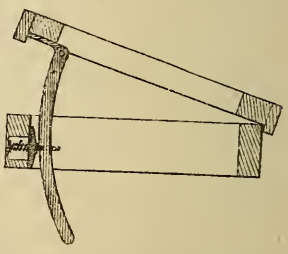

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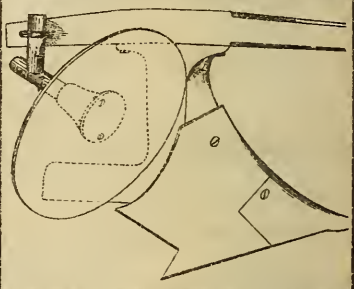
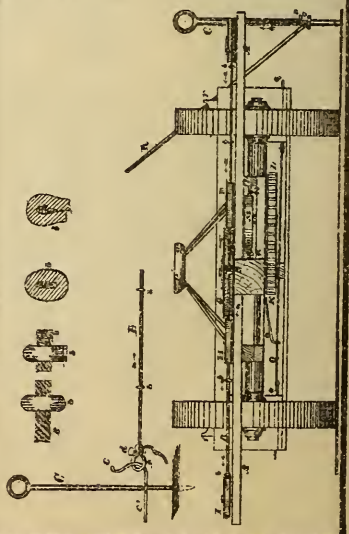
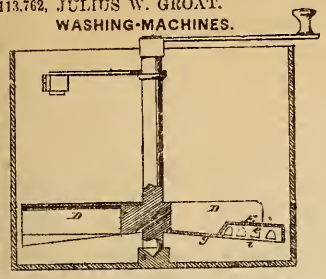
REVOLVING MOLD-BOARDS FOR PLOWS

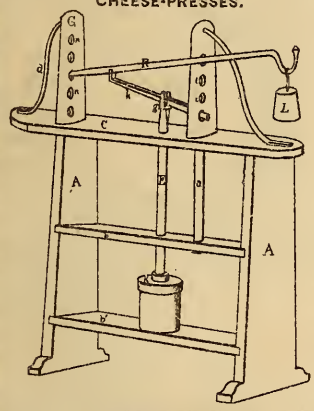




113,762, JULIUS W. GROAT.
WASHING-MACHINES.



113,763, CHARLES L. HAINES.
CHEESE-PRESSES.



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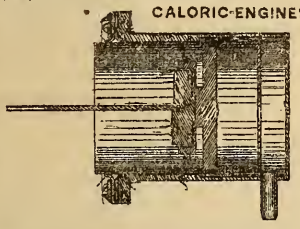
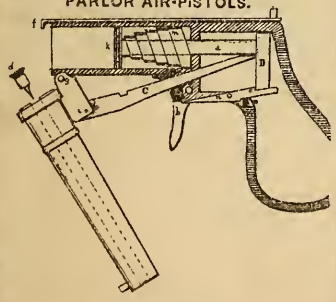
CALORIC-ENGINES.



113,765, JOHN R. his × mark HARRINGTON.
CARPET-LININGS.

113,766, BENJ. HAVILAND.
GEO. P. GUNN.
PARLOR AIR-PISTOLS.



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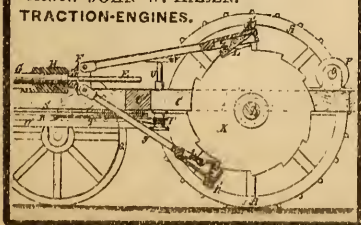
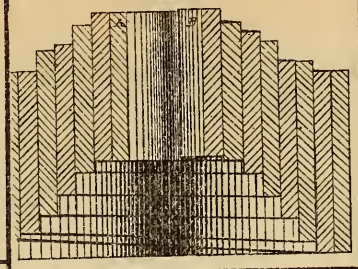
TRACTION-ENGINES.



113,768, ALBERT HEBBARD.
CAR-SPRINGS.



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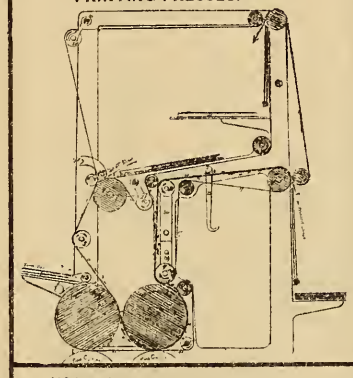
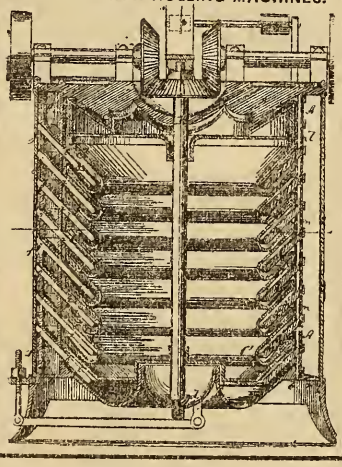
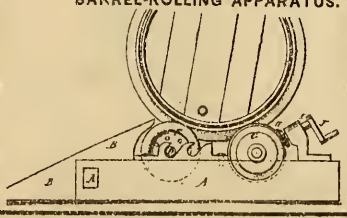
PRINTING-PRESSES.



113,770, MICHAEL HOFFMANN.
GRAIN-HULLING MACHINES.

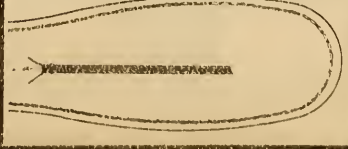


113,771, LEWIS L. HYATT.
ADOLPH G. HÜPFEL.
BARREL-ROLLING APPARATUS.



113,772, ELIAS INGRAHAM
THE APPLICATION OF BRONZE AND GILDING TO PLATE GLASS.

113,773, CHAS. P. JOHNSON.
INNER SOLES FOR BOOTS AND SHOES.



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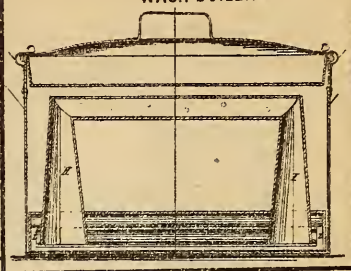
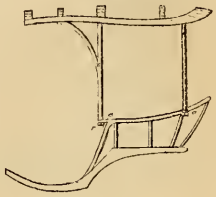
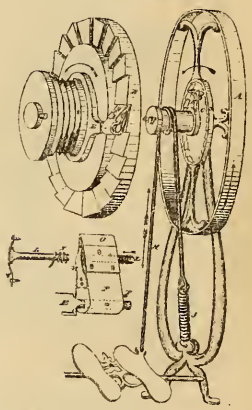
EDWIN B. PALMER.
WASH-BOILERS.



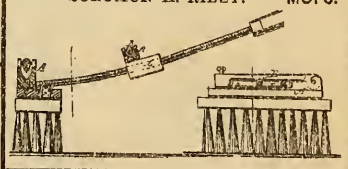
113,775, CHARLES P. KIMBALL.
SHIFTING TOPS FOR BASKET-PHAETONS



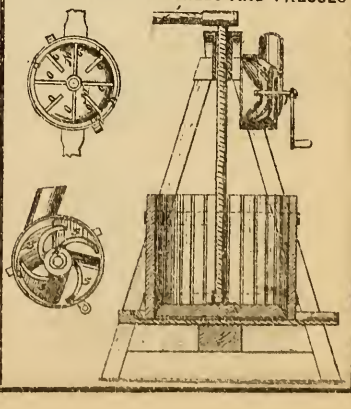
113,776, GEO. BYRON KIRKHAM.
TREADLES.



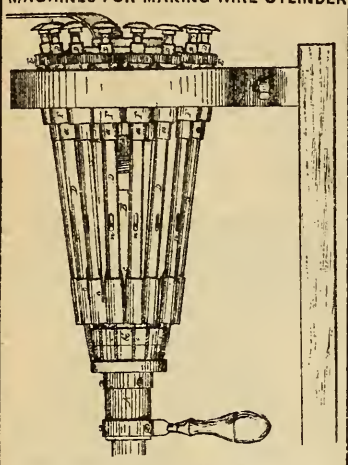
113,777, MILTON W. KIRKWOOD.
SOLOMON H. RILEY.
MOPS.



113,778, DANIEL H. KRAUSER.
COMBINED CIDER-MILLS AND PRESSES

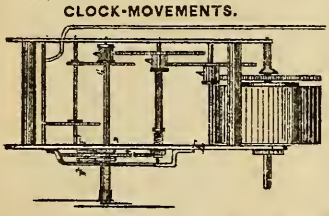


113,779. CYRUS H. LATHAM.
MACHINES FOR MAKING WIRE CYLINDER



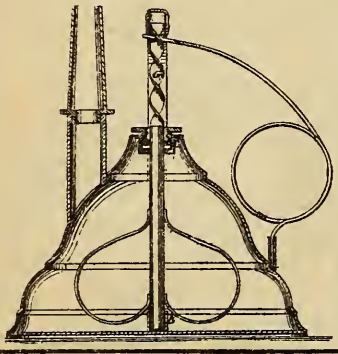
113,780, CHRISTOPHER P. LAWTON.
NECK-TIE RETAINERS.

113,781, BENJAMIN B. LEWIS.
CLOCK-MOVEMENTS.

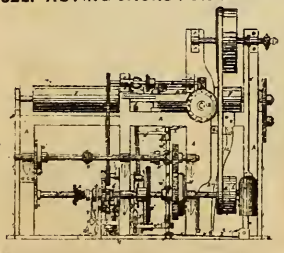


113,782. ROBERT G. LOFTUS.
PURIFICATIONS OF OILS AND FATS BY ACIDS.

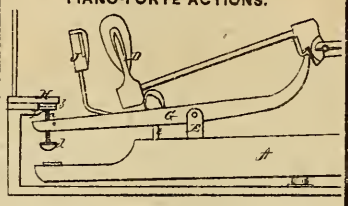
113,783. DONALD D. MACKAY.
CYRUS BUTLER.
PLUMBAGO OIL-CANS.



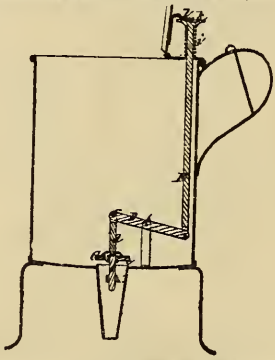
113,784, PETER McGOVERN.
SELF-ACTING JACKS FOR SPINNING.



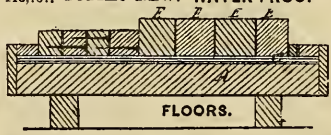
113,785, F. B. McGREGOR.
PIANO-FORTE ACTIONS.



113,786, WILLIAM H. MUMLER.
LIQUID RECEPTACLES AND FUNNELS



113,787. TOBIAS NEW. WATER-PROOF FLOORS.



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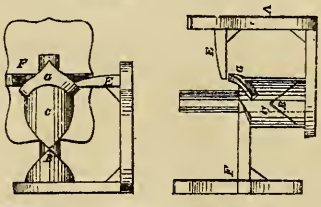
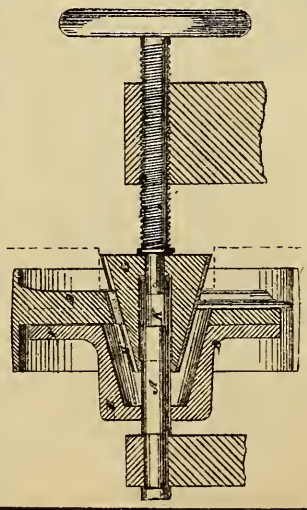
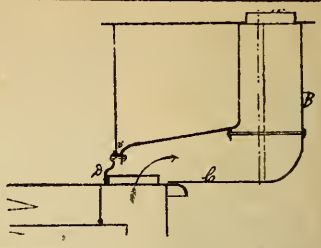
HINGES FOR GATES.



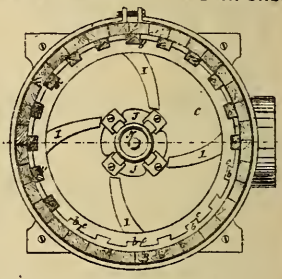
113,789. WILLIAM ONIONS.
ISAAC BAGNALL.
EXTENSION PULLEYS.



113,790. DANL. E. PARIS.
COOKING-STOVES.



113,791. IRA S. PARKE. AMALGAMATING -PANS FOR GOLD AND SILVER-ORES.



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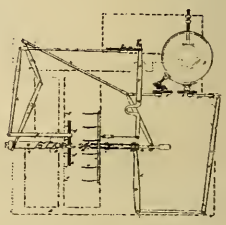
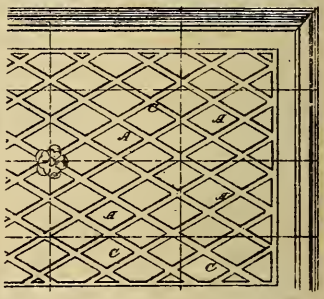
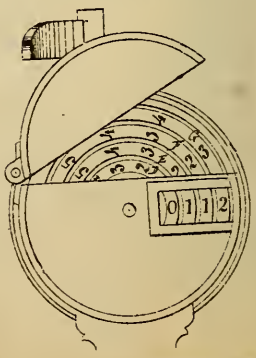
GRAIN-BINDERS.



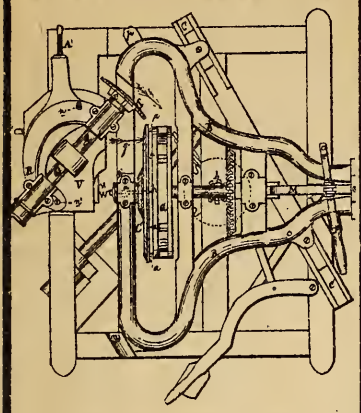
113,793. CHARLES N. POOLE.
CEILINGS AND WALLS FOR BUILDINGS.



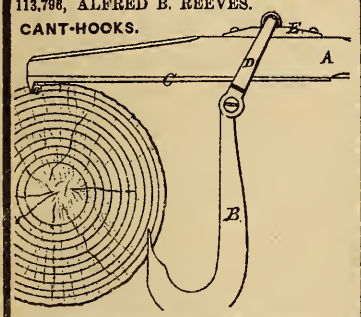
113,794, CHARLES W. PYLE.
COUNTING-REGISTERS.



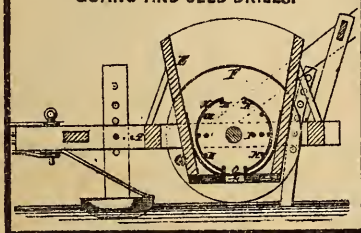
113,795, JOHN JACKSON RALYA.
MACHINES FOR TURNING BARREL-HEAD



113,796, ALFRED B. REEVES.
CANT-HOOKS.



113,797, LEONIDAS M. RHODES.
GUANO AND SEED-DRILLS.



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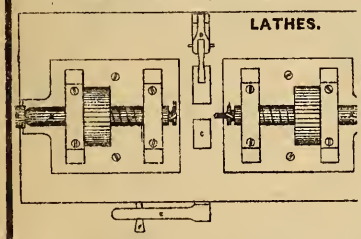
EMERSON P. BROWNELL.
LATHES.



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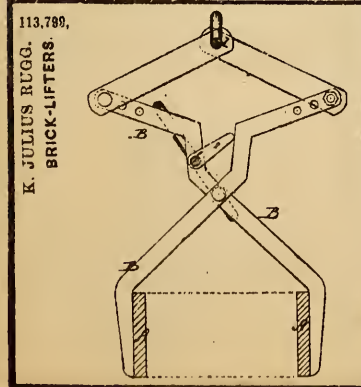
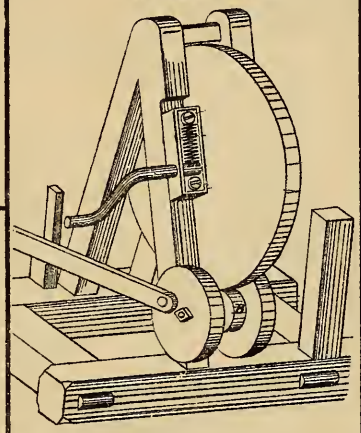
K. JULIUS RUGG.
BRICK-LIFTERS.

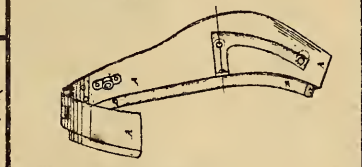


113,800, NATHANIEL RUSSELL.
PLANING-TOOLS.

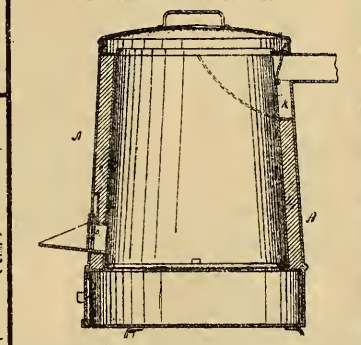
113,801, RICHARD SAMMER.
APPARATUS FOR CONVERTING ROTARY INTO RECIPROCATE MOTION BY MEANS OF FRICTION.



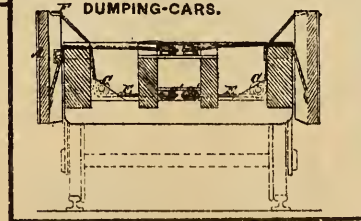
113,802, JOHN W. SCHWANER.
HORSE-COLLARS.



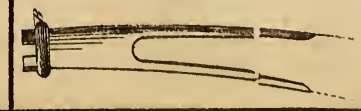
113,803, CONRAD SEIMEL.
SOLDERING-FURNACES.

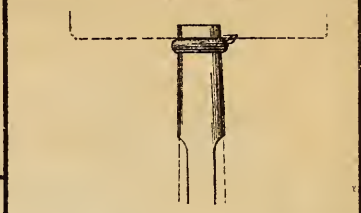


113,804, WM. A. SHARP.
DUMPING-CARS.

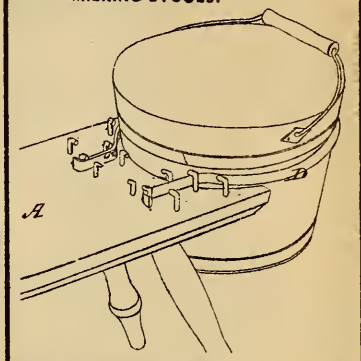


113,805, DOLPHIN G. SMITH,
FERRULES.

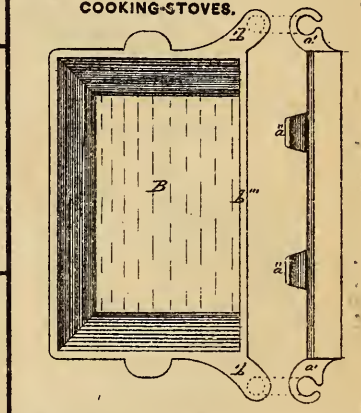




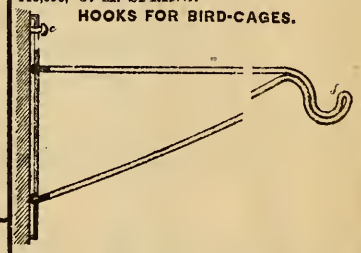
113,806, GEORGE SMITH.
MILKING-STOOLS.



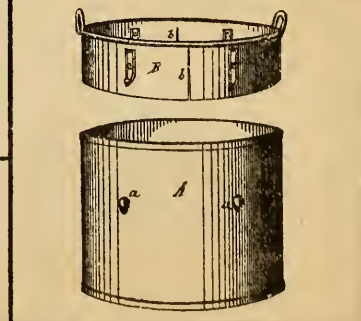
113,807, SAMUEL SMITH.
COOKING-STOVES.



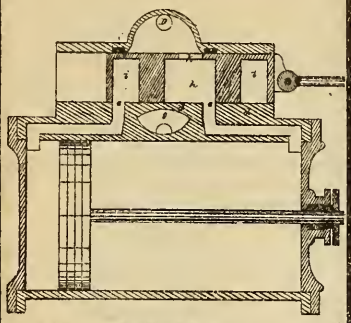
113,808, J. M. SPRING.
HOOKS FOR BIRD-CAGES.



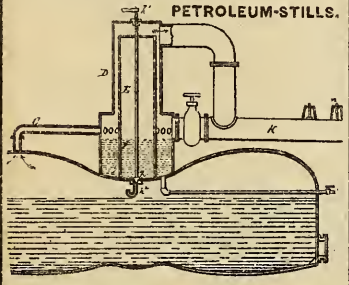
113,809, WILLIAM STERNBERG.
CHEESE-HOOPS.



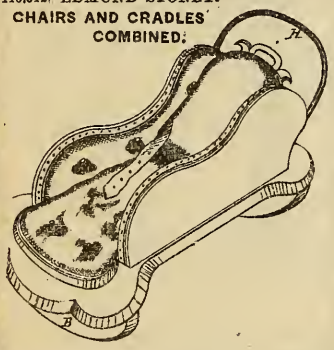
113,810, NATHAN PAGE STEVENS.
STEAM-ENGINE VALVES.



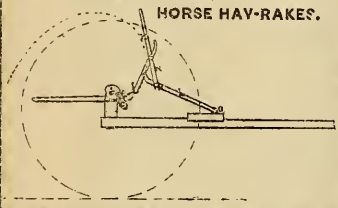
113,811, JOHN L. STEWART.
JOHN P. LOGAN.
PETROLEUM-STILLS.



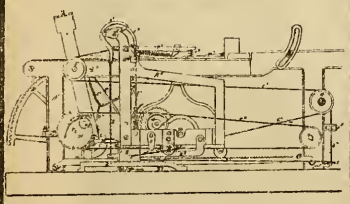
113,812, EDMUND STONEY.
CHAIRS AND CRADLES COMBINED.



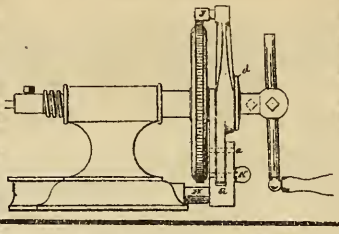
113,813, OLE O. STORLE.
HORSE HAY-RAKES.



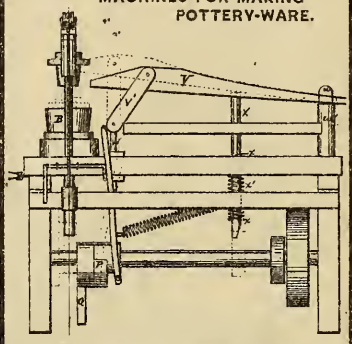
113,814 JAMES SUTHERLAND,
SELF-ACTING MULES FOR SPINNING.



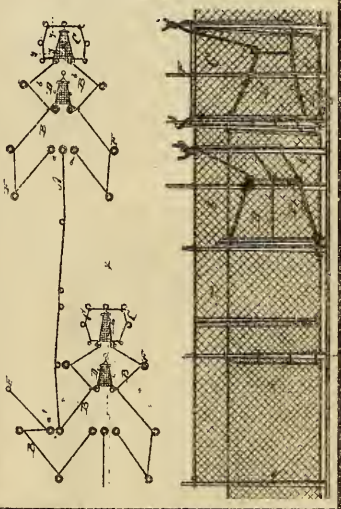
113,815, GEO. C. TAFT.
DRILLING-MACHINES.



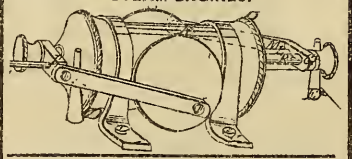
113,816, SAMUEL R. THOMPSON.
MACHINES FOR MAKING POTTERY-WARE.



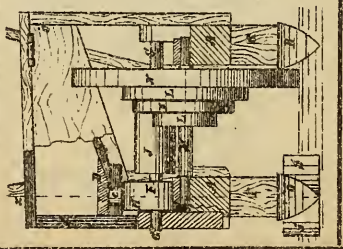
113,817, PATRICK E. TIERNAN.
POUND-NETS FOR FISHING.



113,818, SAMUEL D. TILLMAN.
STEAM-ENGINES.

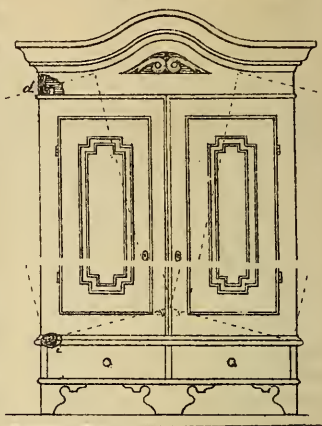


113,819, GRANVILLE J. VAUGHT.
CORN-PLANTERS.



113,820, GUILLAUME VIQUE.
DISINFECTING COMPOUNDS.

113,821, FERDENAND F. VOIGT.
WARDROBES AND BOOK-CASES.



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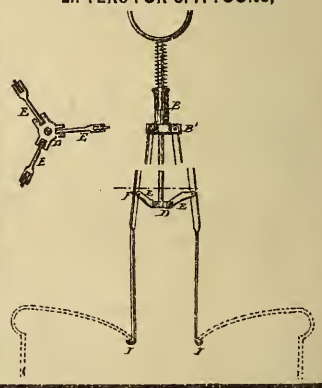
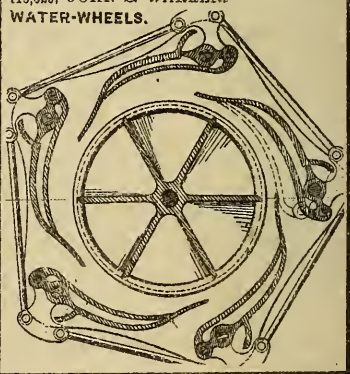
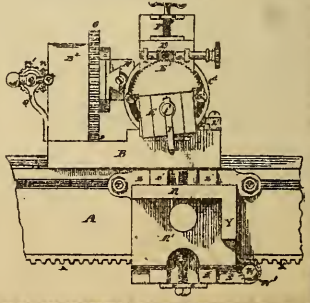
HENRY F. LILLY.
LIFTERS FOR SPITTOONS,



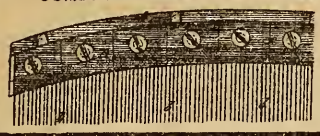
113,823, JOHN S. WARREN.
WATER-WHEELS.



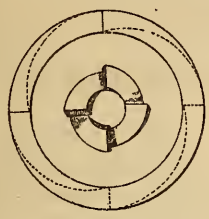
113,824, W. H. WARREN.
SHAPING-MACHINES.



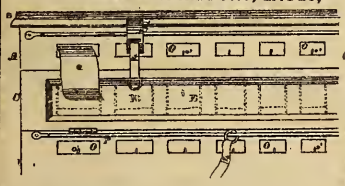
113,825. CHARLES WEILER.
COMBS FOR COMBING-MACHINES.



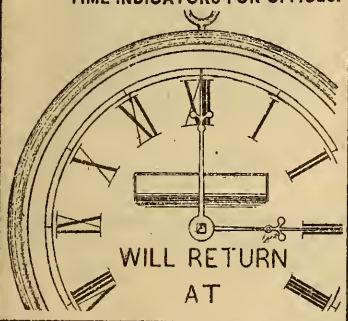
113,826, GEORGE W. WESLEY.
SELF-RELEASING CLUTCHES FOR WATER-WHEELS.



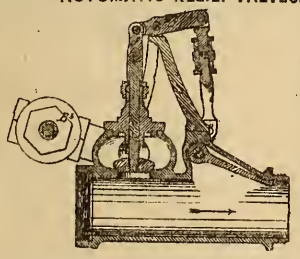
113,827, SAMUEL WHITAKER.
CASES FOR RIBBONS, LACES,



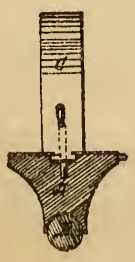
113,828, EDWIN A. WOOD.
TIME-INDICATORS FOR OFFICES.



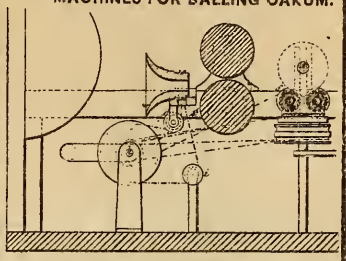
113,829, ALBERT F. ALLEN.
AUTOMATIC RELIEF-VALVES.



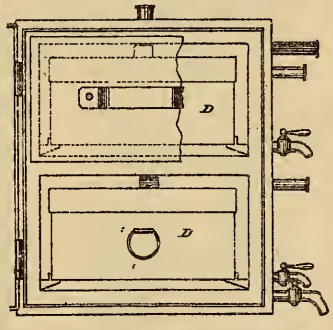
113,830, JOHN R. ANDERSON. PORTABLE ROLLERS FOR MOVING HEAVY BODIES.



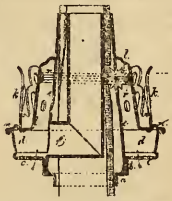
113,831, SAMUEL GEORGE ARCHIBALD.
MACHINES FOR BALLING OAKUM.



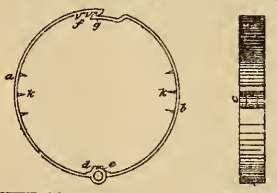
113,832, JOHN ASHCROFT.
APPARATUS AND PROCESSES FOR TREATING COFFEE.



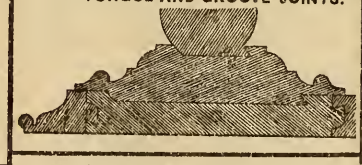
113,833,
L. J. ATWOOD.
LAMP-BURNERS.



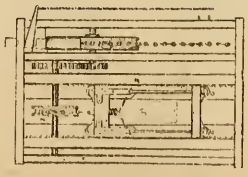
113,834, CLASP-FASTENERS FOR BAGS,
ALFRED HOLME BALCH.
WOLFRED DAVID EMELIUS NELSON.



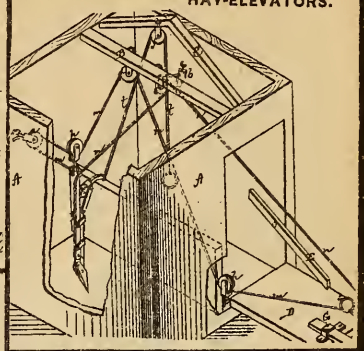
113,835, RICHD. BARTON.
TONGUE-AND-GROOVE JOINTS.



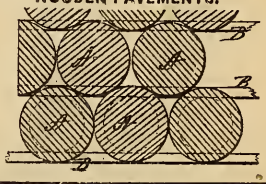
113,836. JAS. BATES.
HOISTING-MACHINES.



113,837, THOMAS VANDOLAH BAYLY.
HAY-ELEVATORS.



113,838, G. A. BEIDLER.
WOODEN PAVEMENTS.



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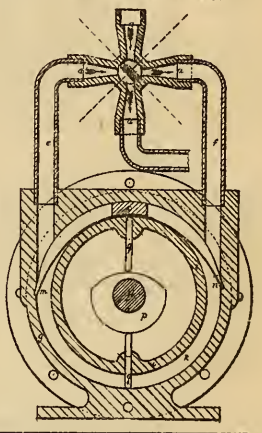
ROTARY ENGINES.



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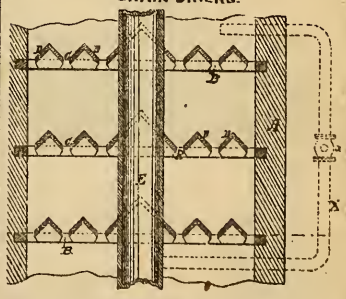
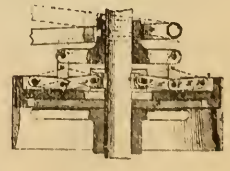
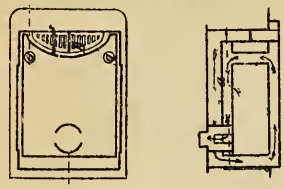
GRAIN-DRIERS.



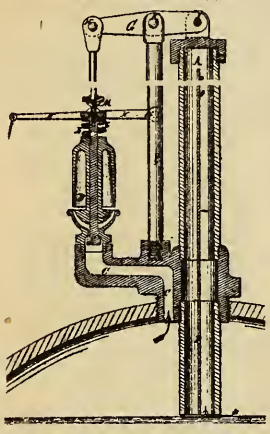
113,841, JAMES H. BLESSING.
FRICTION-CLUTCHES FOR BELT-PULLEY



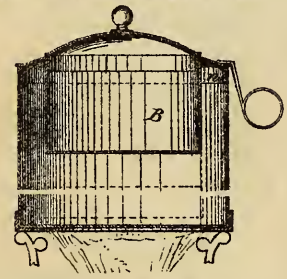
113,842, MARY ANN BOUGHTON.
COOKING-STOVES.



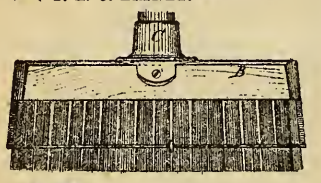
113,843, W. A. BRADFORD.
LOW-WATER INDICATORS.

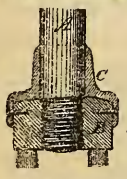


113,844, LOUIS BRAUER. APPARATUS FOR MAKING EXTRACTS FROM VEGETABLE AND ANIMAL SUBSTANCES.

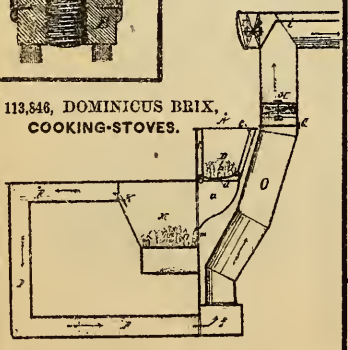


113,845, T. E. C. BRINLY. BROOMS.

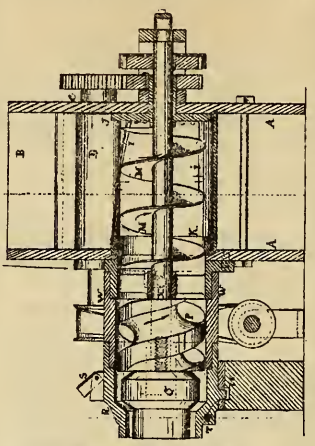




113,846, DOMINICUS BRIX.
COOKING-STOVES.



113,847, I. C. BRYANT. MACHINES FOR MAKING BRICKS AND TILES.



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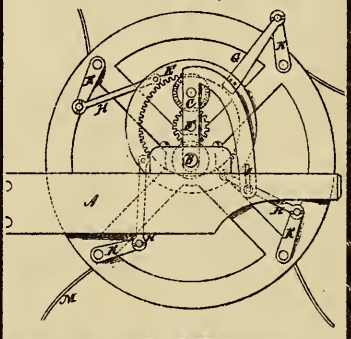
HAY-TEDDERS.



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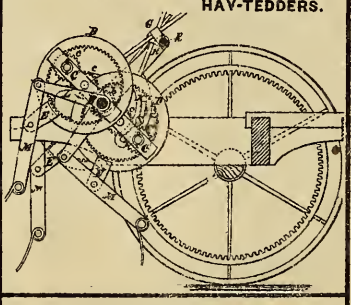
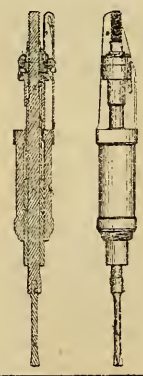
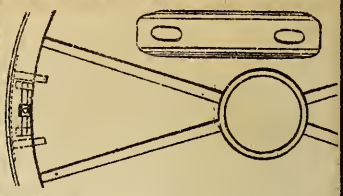
HAY-TEDDERS.



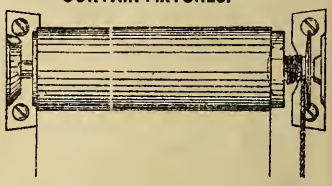
113,850, CHARLES BURLEIGH.
MACHINERY FOR DRILLING ROCKS.



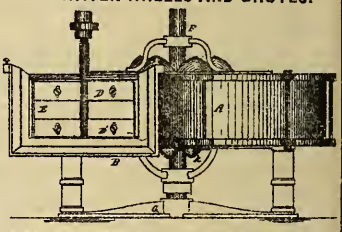
113,851, GARRETT G. W. BURNHAM.
CARRIAGE-WHEELS.



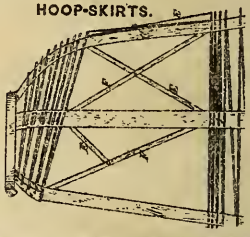
113,852, WM. CAMPBELL.
CURTAIN-FIXTURES.



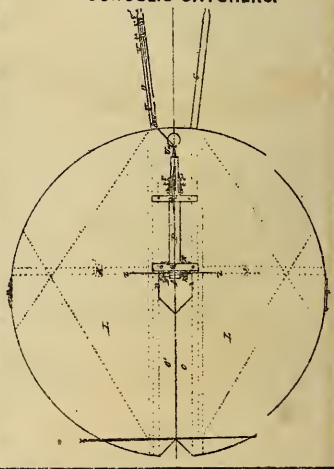
113,853, ELISHA P. H. CAPRON.
WATER-WHEELS AND CHUTES.



113,854, ALBERT CARTER.
HOOP-SKIRTS.

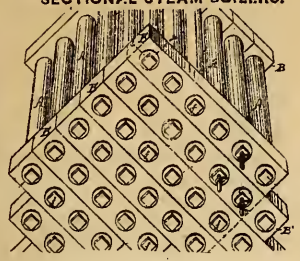


113,855, FRANK J. CLAXTON.
CHARLES D. STEVENS.
CURCULIO-CATCHERS.

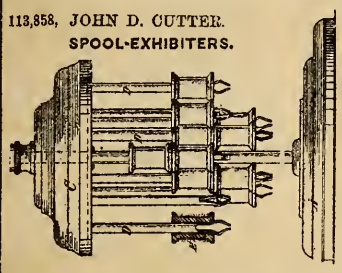


113,856, MORIS COLLINS.
THIMBLE-SKEINS AND BOXINGS.

113,857, WM. H. CORNELL.
SECTIONAL STEAM-BOILERS.

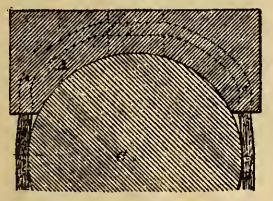


113,858, JOHN D. CUTTER.
SPOOL-EXHIBITERS.

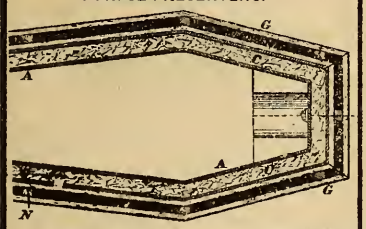


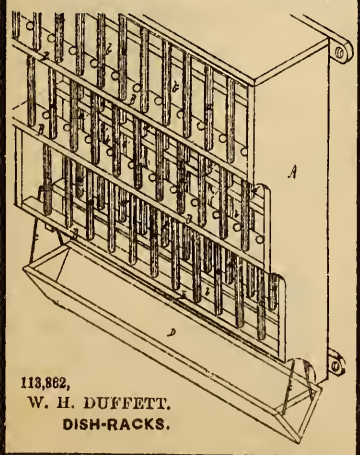
113,859, WM. G. DEAN. PREPARING FLOUR FOR USE IN CONFECTIONERY,

113,860, PATRICK S. DEVLAN.
LUBRICATORS FOR JOURNALS.



113,861, HENRY M. DIGGINS.
CORPSE-PRESERVERS.





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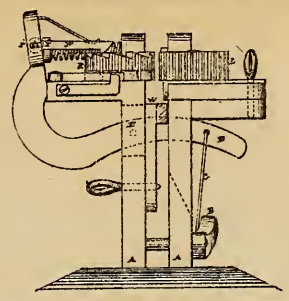
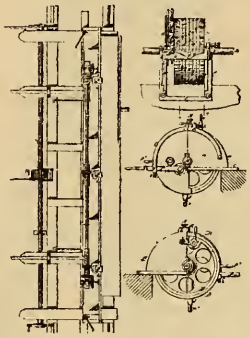
W. H. DUFFETT.
DISH-RACKS.

113,863, ASA EGGLESTON.
MACHINES FOR PIERCING LEATHER.

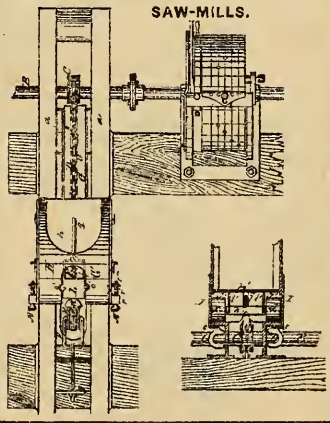


113,864, MOSES G. FARMER.
CONSTRUCTION OF THERMO-ELECTRIC PAIRS.

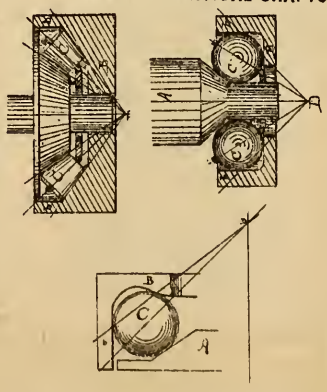
113,865, WILLIAM M. FERRY.
SAW-MILLS.



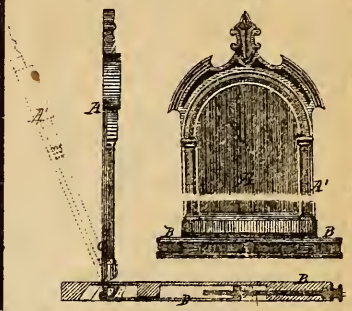
113,866, WILLIAM M. FERRY.
SAW-MILLS.



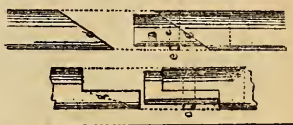
113,867, F. A. GARDNER. BEARING STEPS AND VERTICAL SHAFTS.



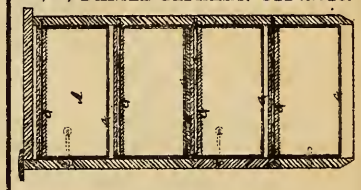
113,868, O. L. GARDNER.
WILLIAM GARDNER.
DEVICES FOR ADJUSTING MIRRORS.



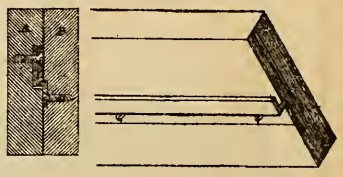
113,869, ALBERT A. GAYLORD.
LIGHTNING-RODS.



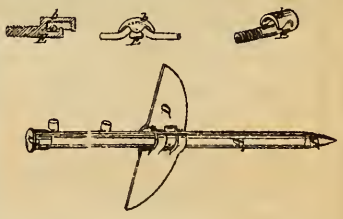
113,870, DANIEL GEBHART. BEE-HIVES.



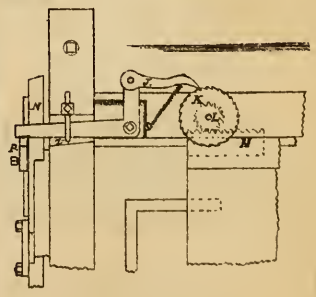
113,871, JAMES S. GIBBONS.
SLIDES FOR DRAWERS.



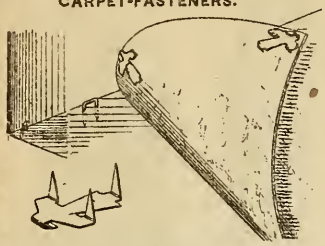
113,872, ANDREW J. GILL.
FENCE-POSTS.



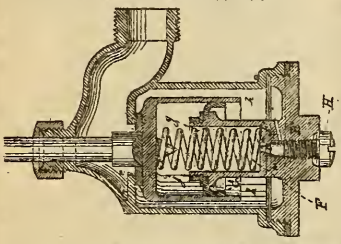
113,873, WILLIAM GILMORE.
TENON-MACHINES.



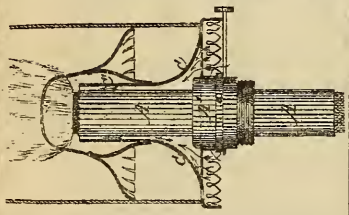
113,874, A. GIVAUDAN.
CARPET-FASTENERS.



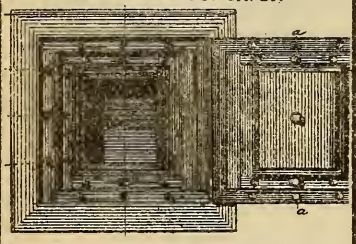
113,875, WILLIAM GORDON.
WATER-CLOSET VALVES.



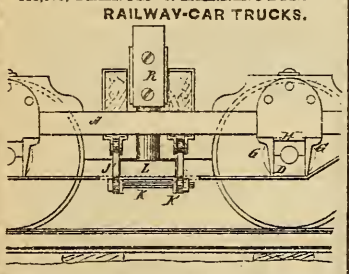
113,876, WM. H. GRAY. LAMP-BURNERS.



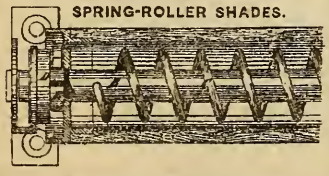
113,877, EDWARD K. HALL.
BURGLAR-PROOF SAFES.



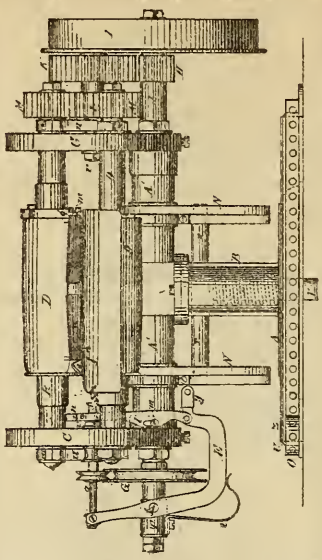
113,878, FRANCIS S. HARRINGTON.
RAILWAY-CAR TRUCKS.



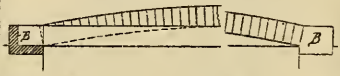
113,879, STEWART HARTSHORN.
SPRING-ROLLER SHADES.



113,880, ISSACHAR A. HEALD.
CIGAR-MACHINES.

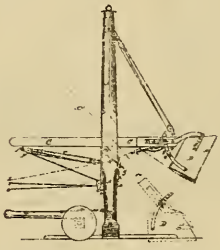


113,881, CONSTANTINE HENDERSON.
ARCHED STRUCTURES.

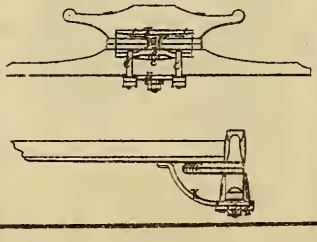


113,882, THOMAS N. HICKCOX.
METAL-CLAD SHINGLES.

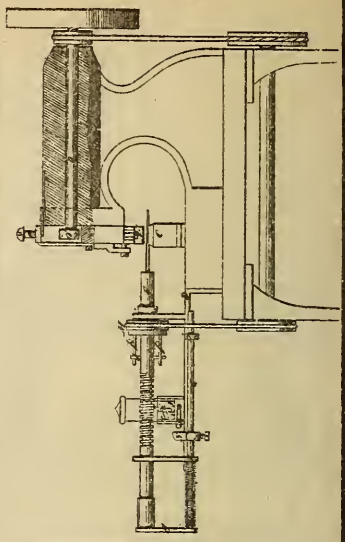
113,883, MARCUS M. HODGMAN.
EXCAVATORS.



113,884, JACOB HOLLINGER.
CARRIAGE-COUPLINGS.



113,885, ALBERT G. HOTCHKISS.
MACHINES FOR REDUCING
OR POINTING WIRE.



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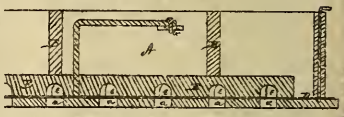
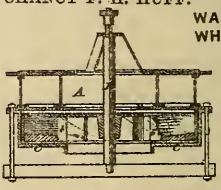
BROILERS.

113,887, THOMAS HOWELL.
HAND SEED-SOWERS.



113,888, CHANCY F. H. HUFF.
WATER-WHEELS.



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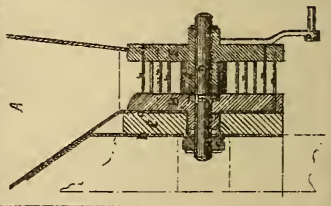
PEANUT-HULLERS.



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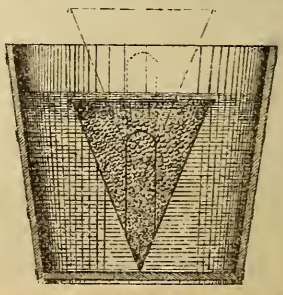
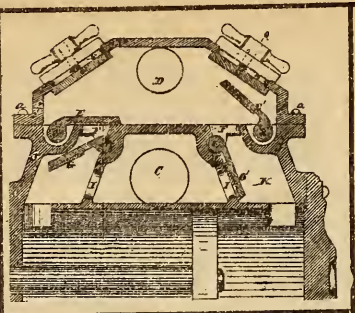
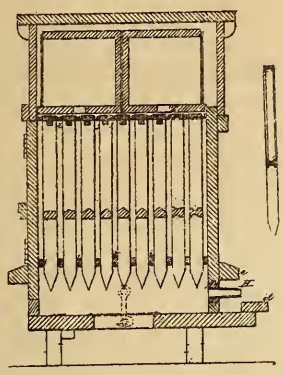
APPARATUS FOR CLEANING COFFEE.



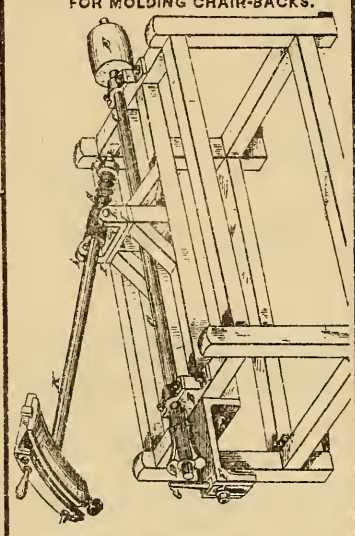
113,891, ALGERNON K. JOHNSTON.
PIPES FOR WATER, GAS.



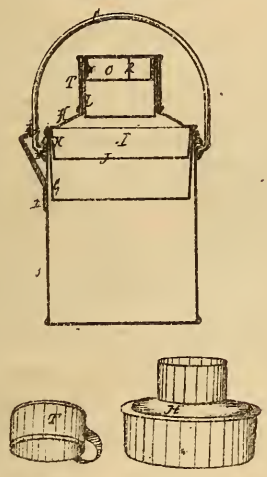
113,892, CAMPBELL JONES.
ALBERT JONES.
BEE-HIVES.



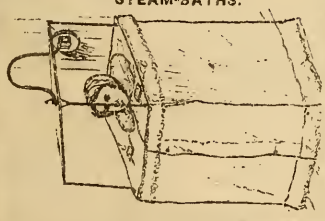
113,893, JOHN LEMMAN. MACHINES FOR MOLDING CHAIR-BACKS.



113,893, HUMPHRYS JOYCE.
ANTHONY ERNEST.
DINNER-PAILS.



113,894, CHARLES KAESTNER.
STEAM-BATHS.

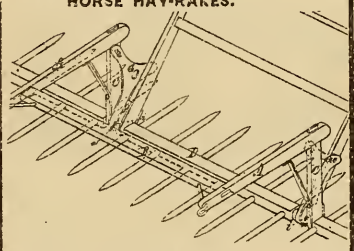


113,895, DAVID W. KAUFFMAN.
DOUBLE-TREES.

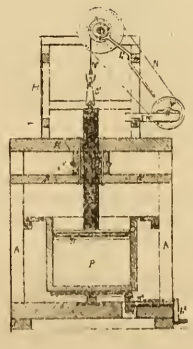
113,896, AUGUST KESSBERGER.
WAGON-AXLES.

113,897, LUCIUS J. KNOWLES.
STEAM-PUMPS.

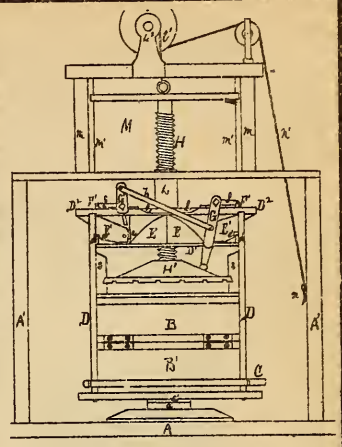
113,899, WM. H. LOCKE.
HORSE HAY-RAKES.



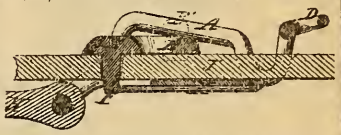
113,900, O. K. MARSHALL.
COTTON AND HAY-PRESSES.



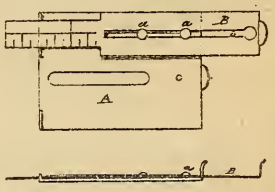
113,901, O. K. MARSHALL.
COTTON-PRESSES AND TRAMPERS.



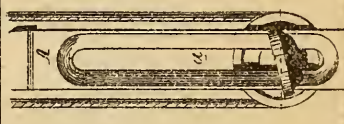
113,902, JOHN H. MARTIN. BUCKLES.



113,903, WILLIAM NELSON MARTIN.
HEMMING AND TUCKING ATTACHMENTS FOR SEWING-MACHINE

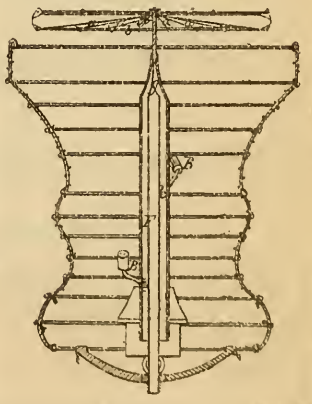


113,904, W. McCONNELL.
SHADE-CORD RETAINERS.

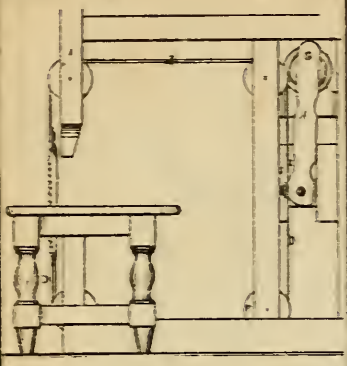


113,905, GEORGE McKENZIE.
COMBINING CARBONACEOUS MATTERS FOR THE MANUFACTURE OF GAS.

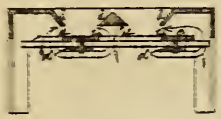
113,906, FREDERICK McLEWEE.
REVOLVING GAS-BURNERS.



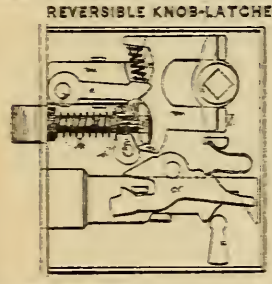
113,907, LOUIS MILLER.
SCROLL-SAWS.



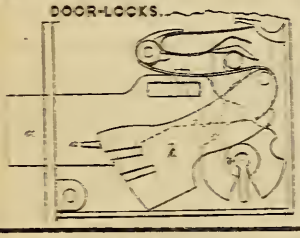
113,908. GEO. R. MOORE. FIRE-GRATES.



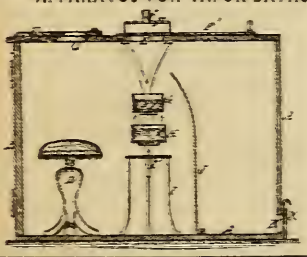
113,909. W. T. MUNGER.
REVERSIBLE KNOB-LATCHES.



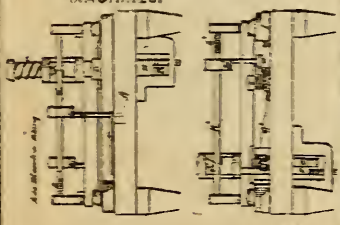
113,910. W. T. MUNGER.
DOOR-LOCKS.



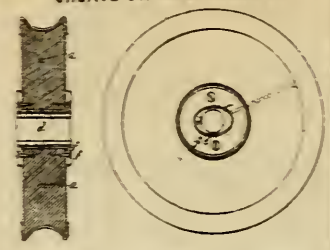
113,911. GEORGE F. MUNRO.
APPARATUS FOR VAPOR-BATHS.



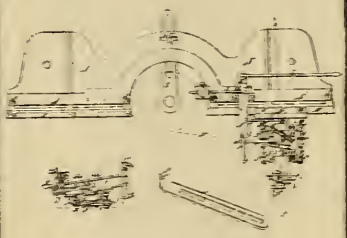
113,912. F. M. NEFF.
JOHN E. SCRUGGS.
TYPE-SETTING AND DISTRIBUTING MACHINES.



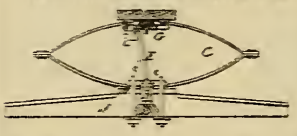
113,913. HENRY NICK.
SHEAVE OR PULLEY-BLOCKS.



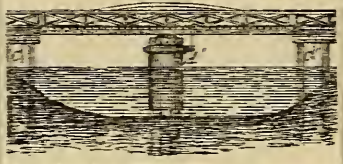
113,914. JOHN NORMAN.
MACHINES FOR DRESSING MILLSTONES.



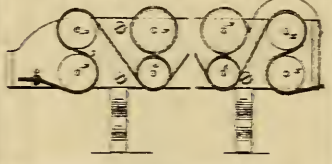
113,915. DANIEL W. NORRIS.
BRACES FOR CARRIAGE-SPRINGS.



113,916. FERDINAND PAIRAN.
GATES FOR DRAW-BRIDGES.



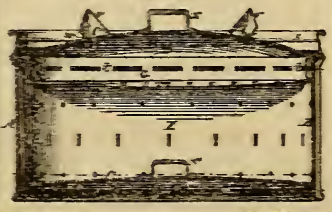
113,917. ISAAC E. PALMER. MACHINES FOR DRESSING WORSTED CORD



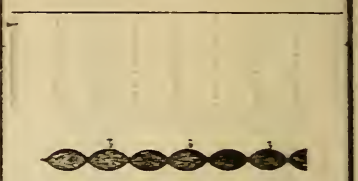
113,918. ALFRED PARAF.
PRODUCTS FROM MADDER.

113,919. ALFRED PARAF.
COMPOSITIONS OF MADDER FOR PRINTING CLOTHS.

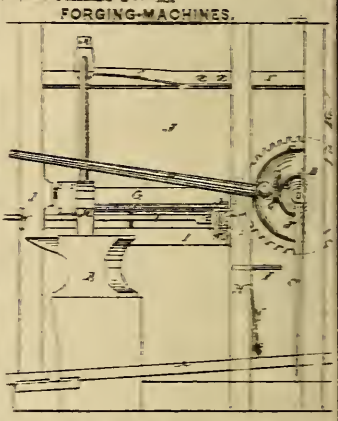
113,920. HENRY W. PELL.
WASH-BOILERS.



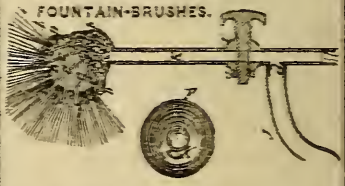
113,921. EARTH-MATTRESSES.
THEODORE WILLIAM PHINNEY.



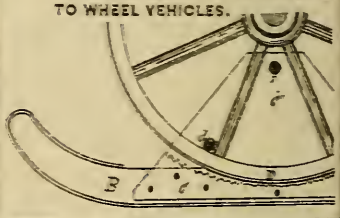
113,922. JAMES PIPES.
FORGING-MACHINES.



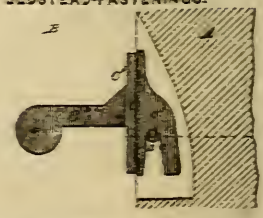
113,923. ZEPHIRE POITRAS.
FOUNTAIN-BRUSHES.



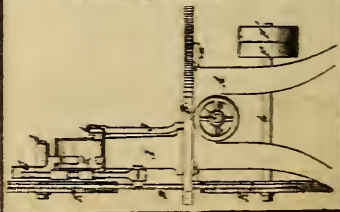
113,924. ZIMRI L. PRATT.
SLEIGH-RUNNER ATTACHMENTS TO WHEEL VEHICLES.



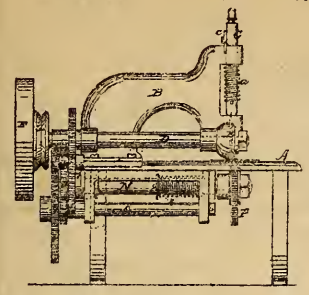
113,925. BEZIN M. PRICE.
BEDSTEAD-FASTENINGS.



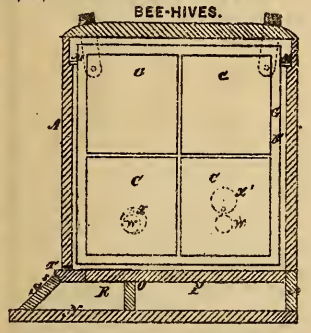
113,926. PAUL PRYIBIL.
SAWING-MACHINES.



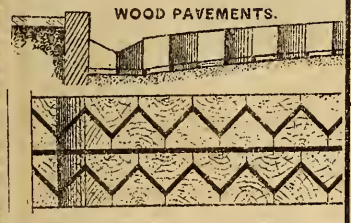
113,927, WILLIAM RAEUCHLE.
MACHINES FOR CUTTING CLOTH.



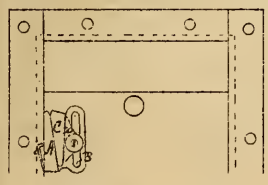
113,928, DWIGHT RIPLEY READ.
BEE-HIVES.



113,929 P. H. REINHARD.
E. F. M. FAEHTZ.
WOOD PAVEMENTS.

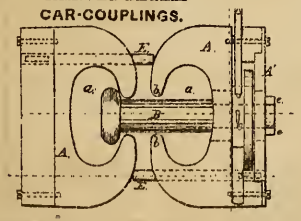


113,930. GEORGE W. REISINGER.
SASH-HOLDERS.



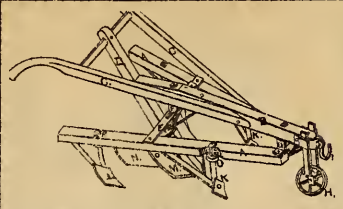
113,931, JOHN H. ROBERTSON.
CAR-DOORS.

113,932, W. BOLTON ROGERSON.
HARVEY BEYEA.
CAR-COUPLINGS.

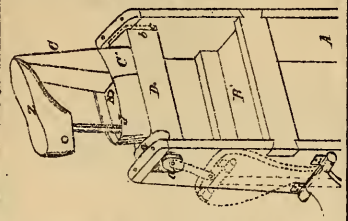


113,933, GERVAS E. ROSE.
WELDING-POWDER FOR IRON.

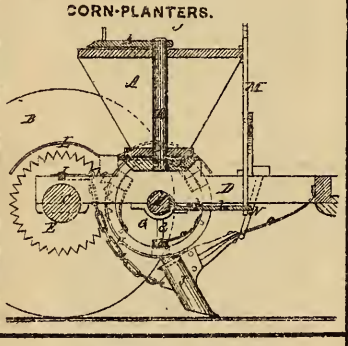
113,934, GUILFORD D. ROWELL.
HORSE HOES AND CULTIVATORS.



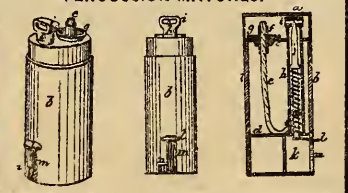
113,935, AUGUST RUST.
SHOEMAKERS' JACKS.



113,936, WILLIAM J. SAGER.
CORN-PLANTERS.

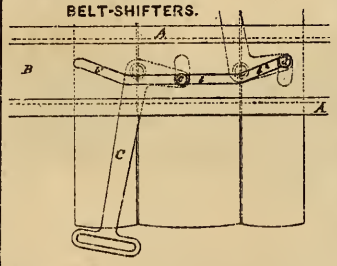


113,937, WM. SERVANT.
PERCUSSION-MATCHES.

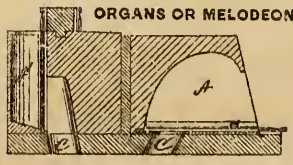


113,938, WILLIAM T. SHERWOOD.
MEDICAL COMPOUNDS OR BITTERS.

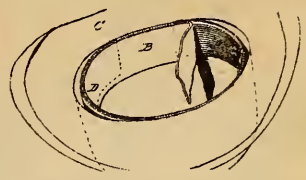
113,939, WM. H. H. SISUM.
BELT-SHIFTERS.



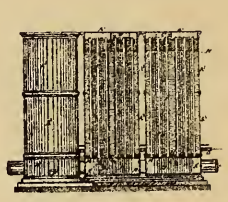
113,940, CHARLES W. SMALL.
REVERBERATING REED-CELLS FOR ORGANS OR MELODEONS.



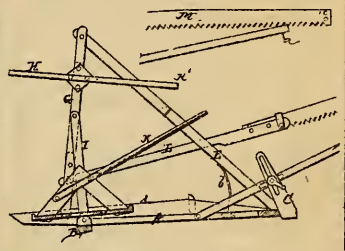
113,941, ALDEN SOLMANS.
HAT-VENTILATORS.



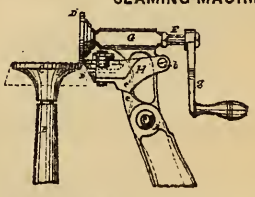
113,942, IRA N. STANLEY.
GAS-CONDENSERS.



113,943, WILLIAM STESCHULT.
SAWING-MACHINES.

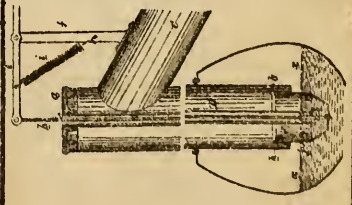


113,944, ORSON W. STOW.
SEAMING-MACHINES.



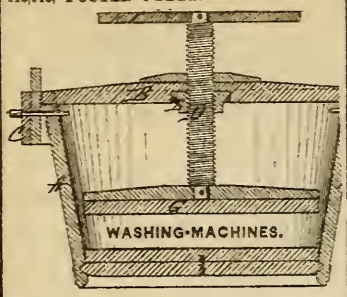
113,945, JAMES THORNTON.
EMMIT G. LATTA.
HAMES FOR HARNESS.

113,946, SAMUEL TRUMBORE. SEALS FOR HYDRAULIC MAINS OF GAS-WORKS.



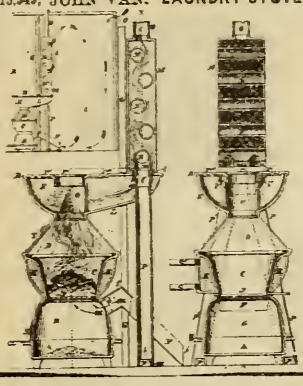
113,947, MARSHALL TURLEY.
PRINTERS' INK.

113,948, FOSTER UTLEY.

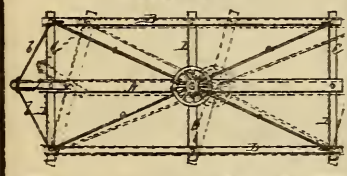


WASHING-MACHINES.

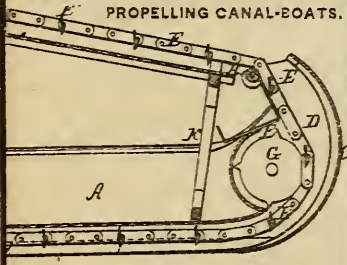
113,949, JOHN VAN. LAUNDRY-STOVES.



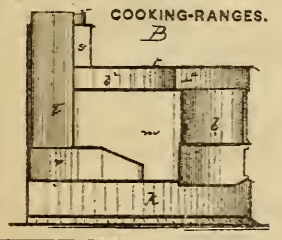
113,950, H. B. VAN VOORHIS.
ROAD-SCRAPERS.



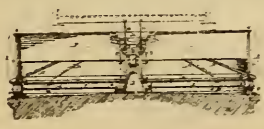
113,951 W. W. VIRDIN.
PROPELLING CANAL-BOATS.



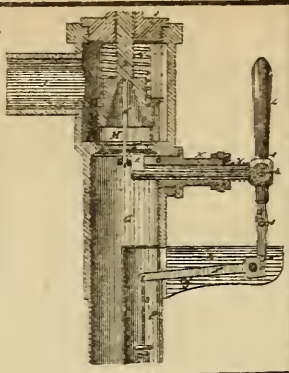
113,952, GEO. W. WALKER.
COOKING-RANGES.



113,953, GEORGE WALTERS. TURN-TABLE

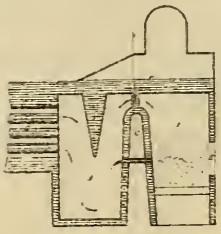


113,954,

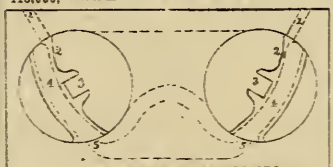


L. H. WATSON.
BARREL-FILLERS.

113,955. ELIJAH WESTON.
STEAM-GENERATORS.

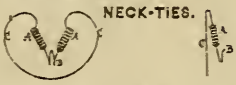


113,956, SETH H. WHITMORE.

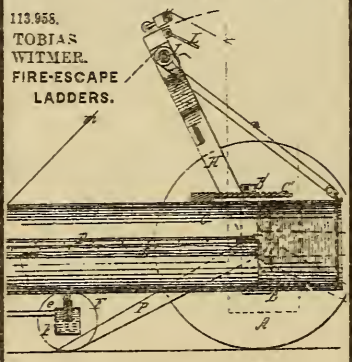


STEAM-ENGINE VALVES.

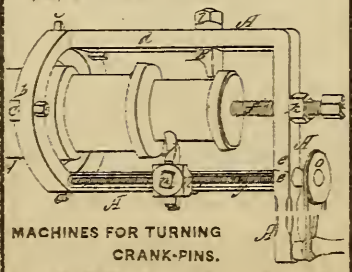
113,957, JOSEPH B. WILBER.
OTIS W. PEIRCE.
NECK-TIES.



113,958.
TOBIAS WITMER.
FIRE-ESCAPE LADDERS.

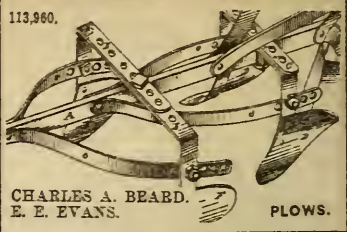


113,959, MILTON G. WOOD.



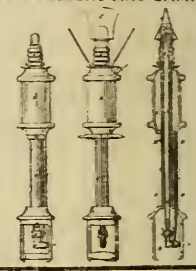
MACHINES FOR TURNING CRANK-PINS.

113,960.

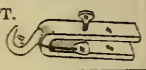


CHARLES A. BEARD.
E. E. EVANS.
PLOWS.

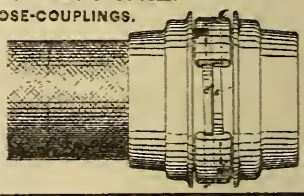
4,342. BENJAMIN D. EVANS. COMBINED VAPOR-BURNERS AND LAMP-POSTS.



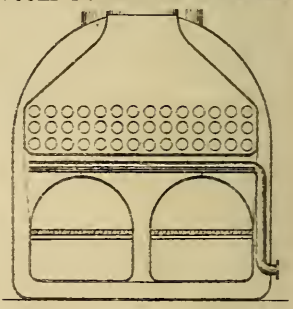
4,343, JAMES H. PRATT.
CLOTHES-WRINGING HOOKS.



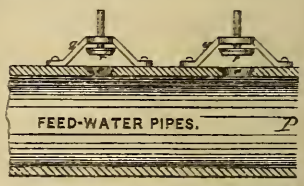
4,344, JAMES C. COOKE.
HOSE-COUPLINGS.



4,345, JOHN DOYLE. FEED-WATER PIPES.



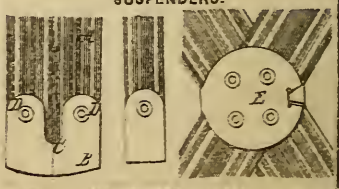
4,346, JOHN DOYLE.



FEED-WATER PIPES.

4,347, WILLIAM HAINSWORTH.
SEARS M. LOVERIDGE. MOLDS.

4,348 JAMES B. SHARP.
WILLIAM SEYMOUR,
SUSPENDERS.



ILLUSTRATIONS OF PATENTS

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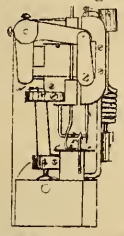
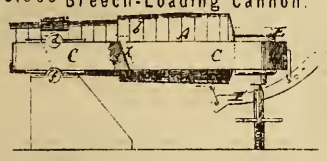
APRIL 25, 1871.

113,961. W. N. ABBOTT.
Chimney-Cowls.

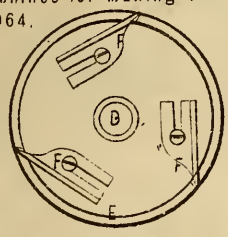
H. P. ALDRICH
Waxed Thread Sewing-Machines.
113,962.



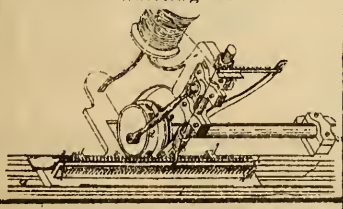
HIRAM J. ALLEN.
113,963 Breech-Loading Cannon.



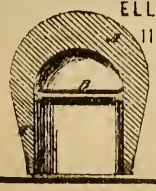
C. ANDREWS.
Machines for Making Skewers.
113,964.



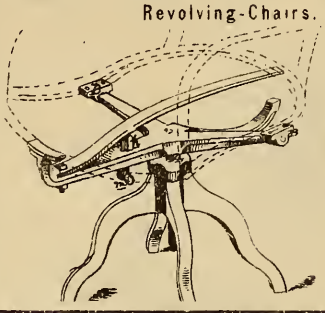
JOHN M. ARMOUR.
113,965. Knitting-Machines.



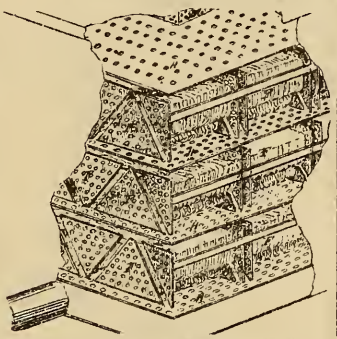
ELLIS BALLOU.
113,966. Dumb-Bells



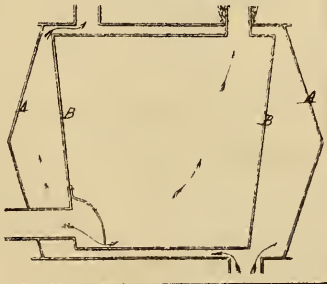
113,967. F. BARBER.
Revolving-Chairs.



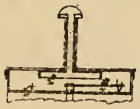
CHARLES C. BEERS. 113,968
Apparatus for Carbureting Air.



G. C. BENTON.
113,969. Stove-Drums.

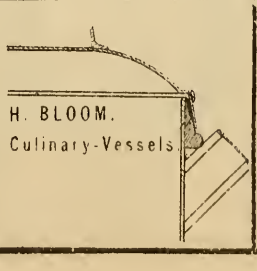


I. G. BLAKE. 113,970.
Watchmen's Time-Checking Clocks.

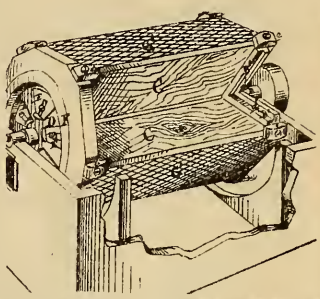


113 971

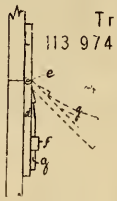
WILLIAM H. BLOOM.
Culinary-Vessels.



JOHN R. BRADFIELD.
113,972. Flour-Bolts and Reels.

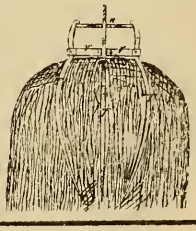


D. W. BROCKWAY.
Trunk-Fasteners.
113 974.

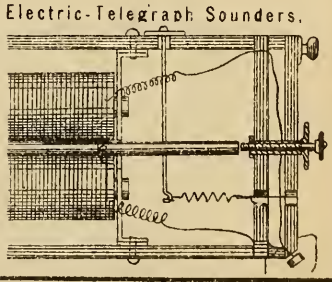


113,973.
LEOPOLD BRANDEIS.
MATERIALS FOR FILTERING.

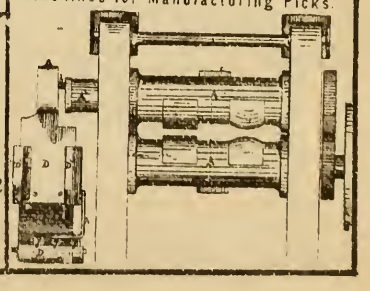
JOHN T. H. BROWN
113 975. Elevator Hay-Forks.



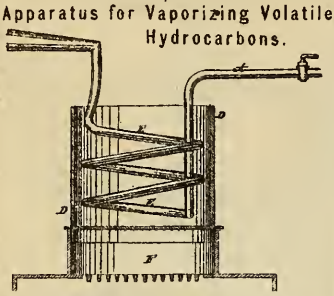
H. S. L. BRYAN. 113,976.
Electric-Telegraph Sounders.



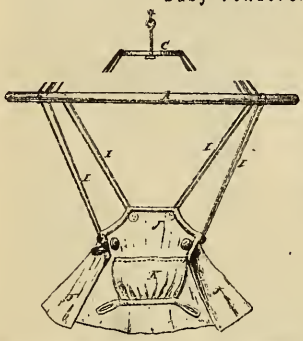
A. BUERKLE. 113,977
Machines for Manufacturing Picks.



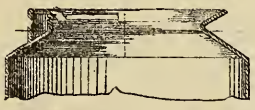
JOHN BUTLER. 113,978.
Apparatus for Vaporizing Volatile Hydrocarbons.



A. H. CARSON & A. BROWN.
113,979. Baby-Tenders.

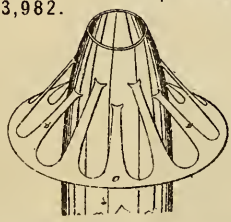


E. A. CASTELLAW. 113,980.
Locomotive Smoke-Stacks.

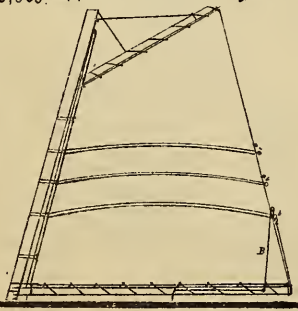


DAVID L. COHEN. 113,981.
Boat-Detaching Apparatus.

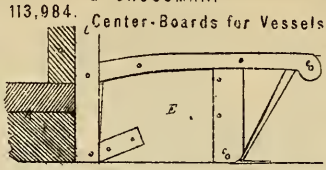
M. H. COLLINS.
113,982. Lamp-Shades.



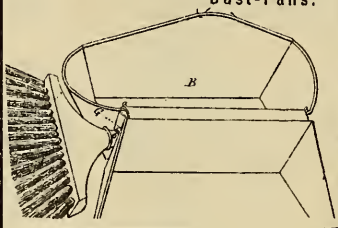
A. G. CROSSMAN.
113,983. Apparatus for Reefing Sails.



A. G. CROSSMAN.
113,984. Center-Boards for Vessels.

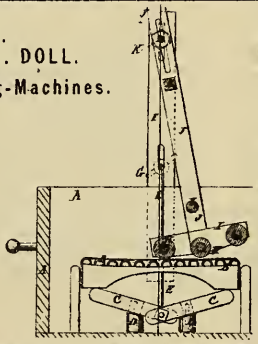


F. L. DANIELS & JOHN RUSSELL
113,985. Dust-Pans.

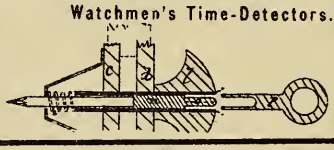


JOHN DEMAREST. 113,986.
Flasks for Casting Pipes.

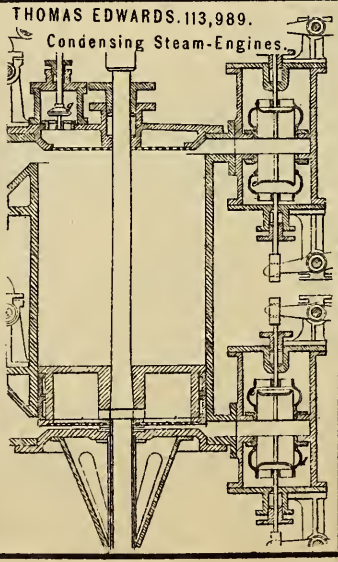
113,987.
JOHN H. DOLL.
Washing-Machines.



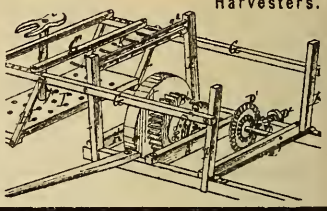
JAMES DUNNING. 113,988.
Watchmen's Time-Detectors.



THOMAS EDWARDS. 113,989.
Condensing Steam-Engines.

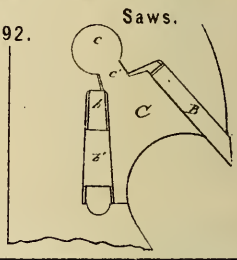


113,990. JOHN H. ELWARD.
Harvesters.

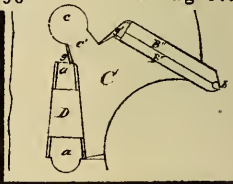


GEORGE W. EMERSON.
113,991. Paper-Files.

JAMES E. EMERSON.
113,992. Saws.

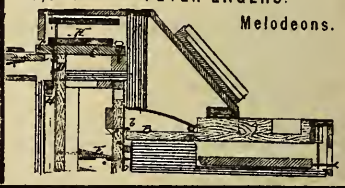


JAMES E. EMERSON.
113,993 Saws for Sawing Stone.

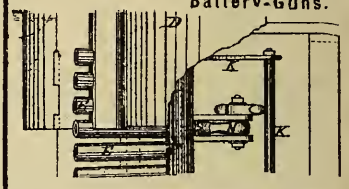


113,995. WILLIAM H. FARRAR.
COMPOUNDS

113,994. PETER ENGERS.
Melodeons.



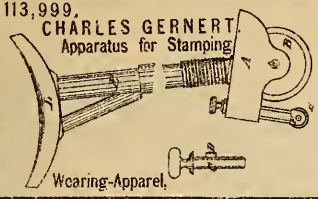
113,996 WILLIAM FIELDS.
Battery-Guns.



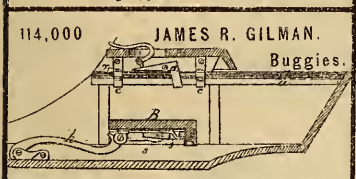
113,997.
CHAS. H. FRINGS.
PREPARING AND MASHING GRAIN.

GEORGE GARRETT.
113,998. Hinges for Gates.

113,999. CHARLES GERNERT. Apparatus for Stamping Wearing-Apparel.

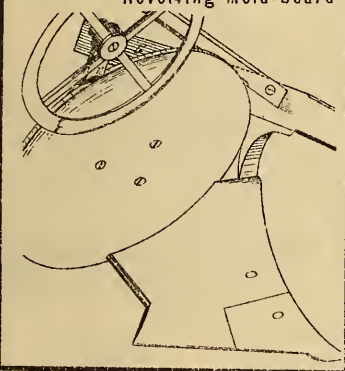


114,000 JAMES R. GILMAN. Buggies.

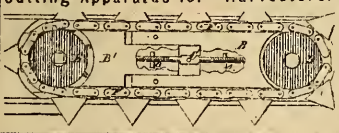


L. C. GOSSON. 114,001. Burglar-Alarms

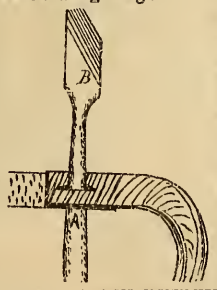
J. S. GODFREY. 114,002. Revolving Mold-Board



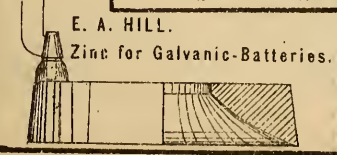
P. GREGG. 114,003. Cutting Apparatus for Harvesters.



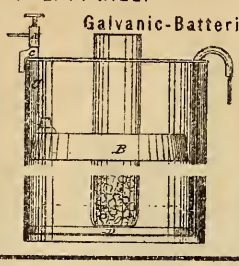
MARION GREEN. 114,004. Slitting and Joining Rags



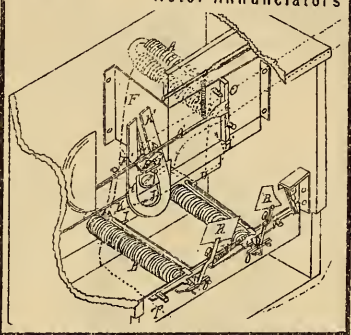
114.005. E. A. HILL. Zinc for Galvanic-Batteries.



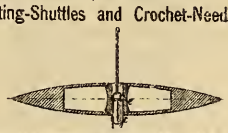
114,006. E. A. HILL. Galvanic-Batteries.



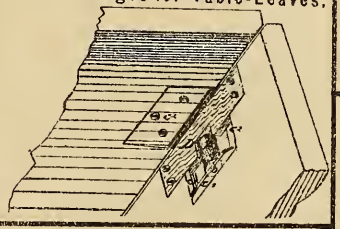
114,007. E. A. HILL. Hotel-Annunciators



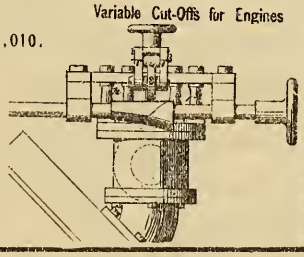
C. HINGHER. 114,008. Tatting-Shuttles and Crochet-Needles.



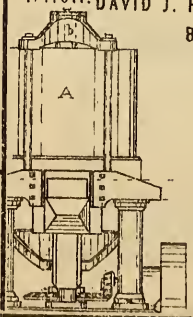
114,009. P. HIRES. Hinges for Table-Leaves.



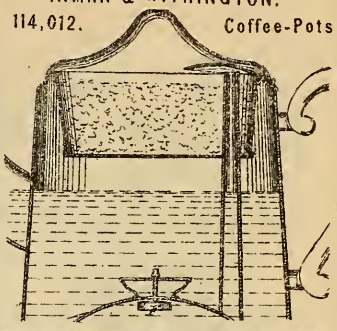
B. HOLLY. Variable Cut-Offs for Engines 114,010.



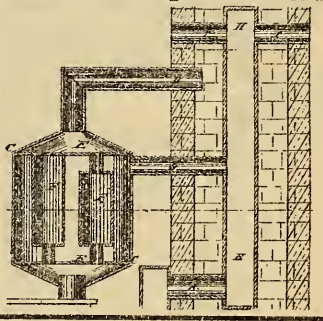
114,011. DAVID J. HUNTER. Brick-Machines.



INMAN & WITHINGTON. 114,012. Coffee-Pots

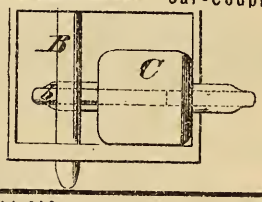


R. JENNINGS. 114,013. Drums for Heating and Ventilating

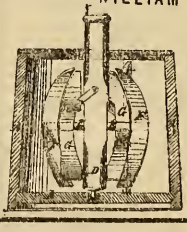


114.014. WILLIAM JOHNSON. Pendulum-Levels and Clinometers

114,015 J. W. JONES Car-Couplings.

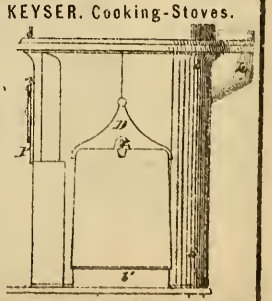


114,016. WILLIAM F. JONES. Churn-Dashers.

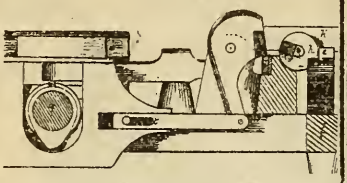


114,017. WILLIAM N. JORDAN. IMPROVEMENT IN PAINTS.

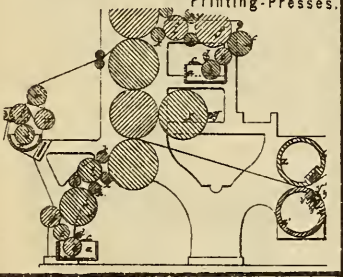
JOHN H. KEYSER. Cooking-Stoves. 114,018.



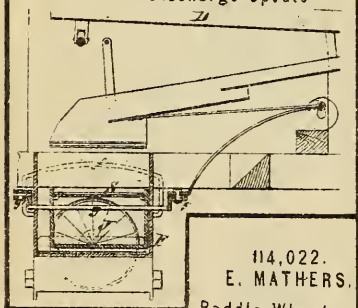
WILLIAM J. LEWIS. 114,019.
Machines for Making Strap-Hinges.



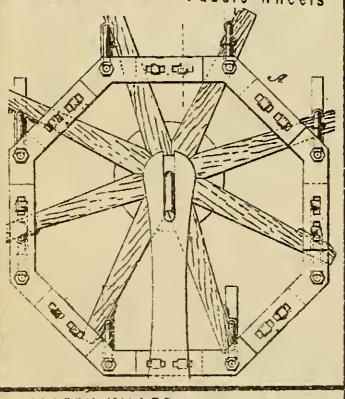
114,020. MACDONALD & CALVERLY.
Printing-Presses.



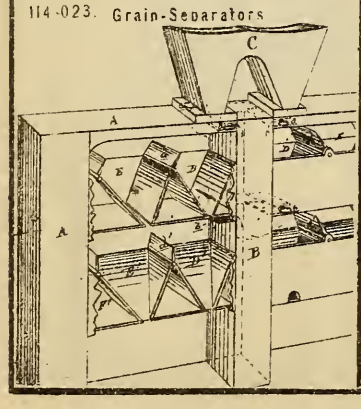
114,021. M. H. MANSFIELD.
Discharge-Spouts



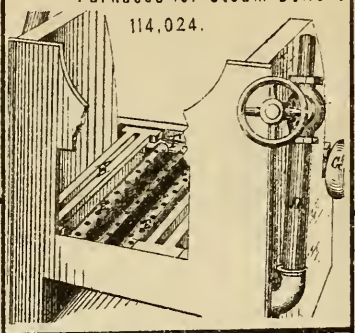
114,022.
E. MATHERS.
Paddle-Wheels



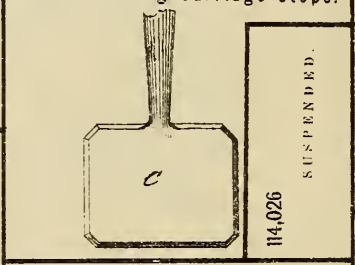
JOSEPH MILLER.
114,023. Grain-Separators



THOMAS F. MORRISON.
Furnaces for Steam-Boilers
114,024.

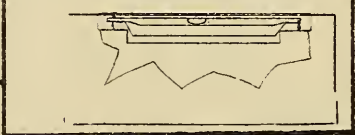


114,025. FRANCIS B. MORSE.
Making Carriage-Steps.

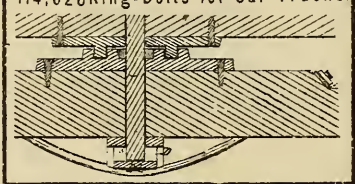


114,026 SUSPENDED.

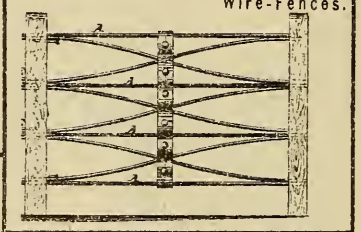
J. MORSS & F. B. ABEL
114,027. Adjustable Spirit-Levels



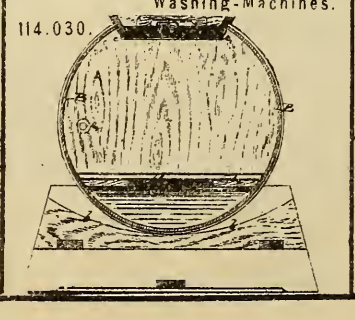
S. W. MURRAY & B. P. LAMASON.
114,028 King-Bolts for Car Trucks.



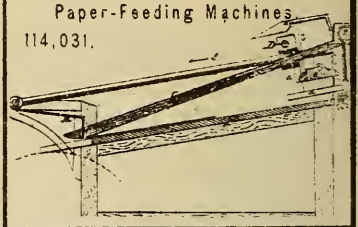
114,029. Z. NICHOLSON.
Wire-Fences.



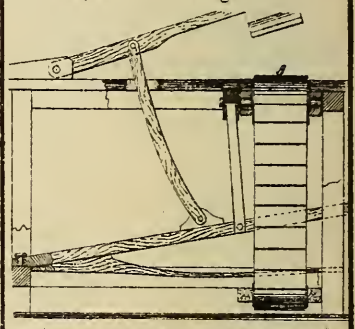
JAMES M. NOBLE.
Washing-Machines.
114,030.



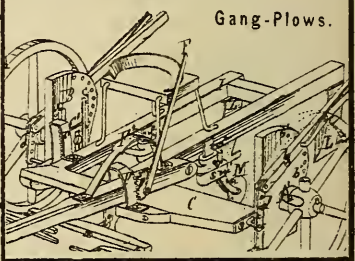
O. NORELIUS.
Paper-Feeding Machines.
114,031.



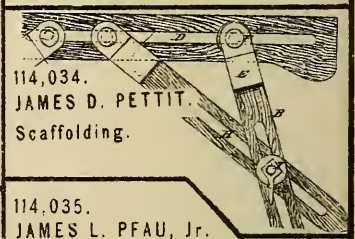
P. O'CONNER. 114,032.
Newspaper-Addressing Machines.



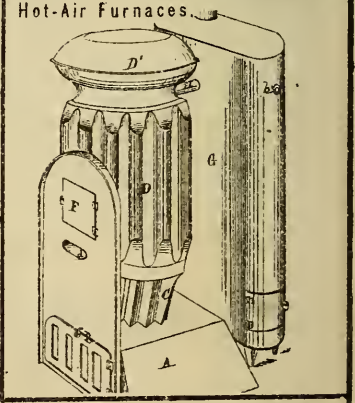
114,033. JOSEPH OLER.
Gang-Plows.



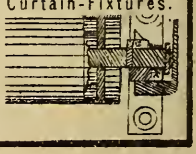
114,034.
JAMES D. PETTIT.
Scaffolding.



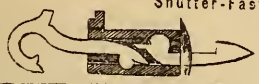
114,035.
JAMES L. PFAU, Jr.
Hot-Air Furnaces.



114,036.
P. W. PHILLIPS
Curtain-Fixtures.

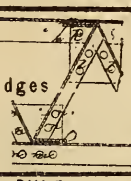


114,037. PHYFE & PERRINE.
Shutter-Fasteners.

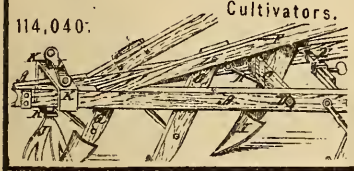


114,038.
A. POTTS
Wood Pavements.

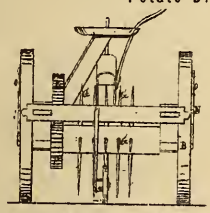
T. W. PRATT.
Truss-Bridges
14.039.



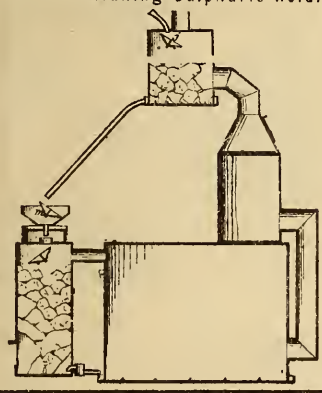
I. N. PYLE.
114,040. Cultivators.



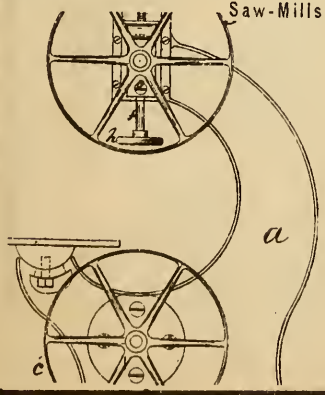
114.041. SQUIRE RANSOM.
Potato-Diggers.



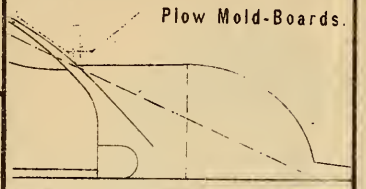
114,042. ST. J. RAVENEL
Making Sulphuric Acid.



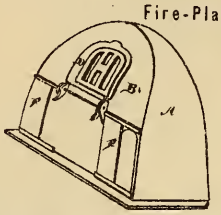
114,043. J. RICHARDS.
Saw-Mills.



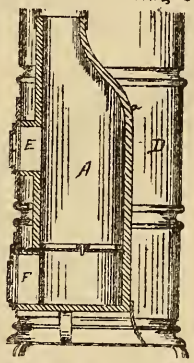
114,044 L. P. RIDER.
Plow Mold-Boards.



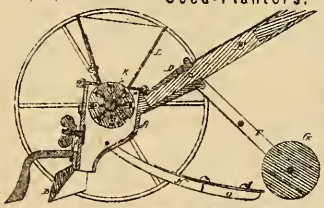
114,045 P. M. ROCHE.
Fire-Places.



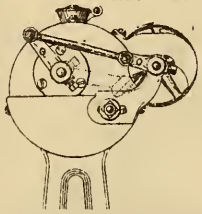
P. ROHDIN & C. OSTERGREN.
114,046. Heating-Stoves.



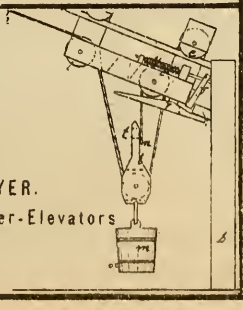
CHARLES R. SARGENT.
114,047. Seed-Planters.



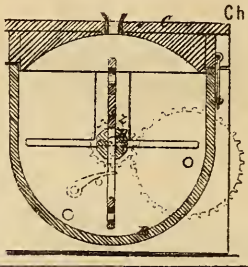
CHARLES G. SARGENT.
114,048. Machines for Oiling Wool.



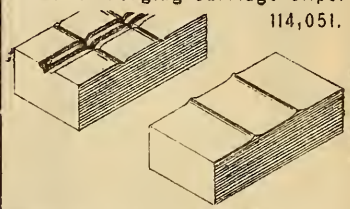
114,049.
P. W. SAWYER.
Water-Elevators



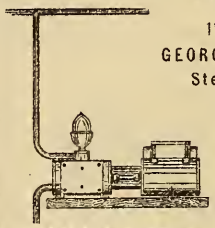
114.050 H. SCHULTDREES.
Churns.



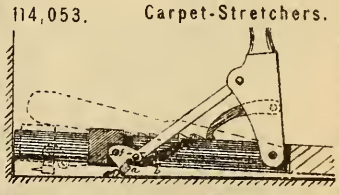
M. SEWARD.
Dies for Forging Carriage-Clips.
114,051.



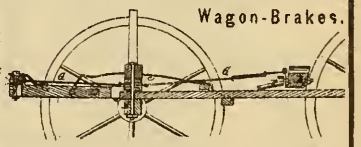
114,052.
GEORGE SEWELL.
Steam-Boilers.



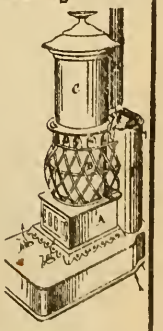
E. P. SHAFFER.
114,053. Carpet-Stretchers.



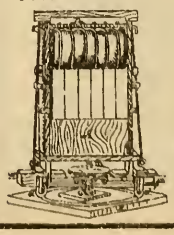
114,054. R. C. SHOCKLEY.
Wagon-Brakes.



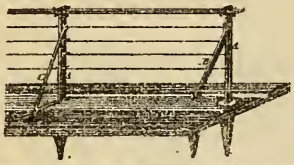
114,055. A. S. SHONTZ.
Heating-Stoves.



114,056
F. SIMMONS.
Cotton-Presses.



114,057. A. C. SISSON.
Wire-Fences.

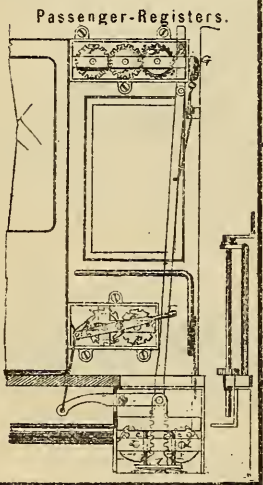


JAMES Y. SITTON.
114,058. Carriage-Wheels.

114,059.
JOSEPH SMITH.

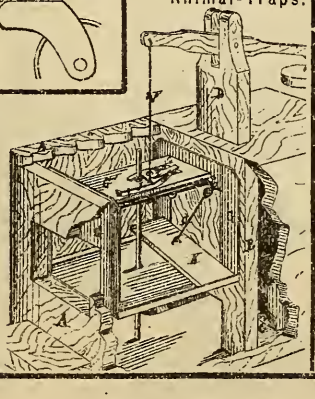
Fallers for Spinning-Mules.

M. SPRINGWOTER.
114,060. Passenger-Registers.

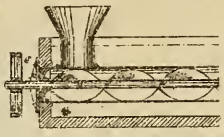


A. G. STEVENS.
114,061. Furniture-Casters.

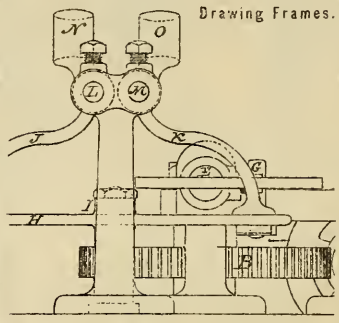
114,062.
STOWE & LOOP.
Animal-Traps.



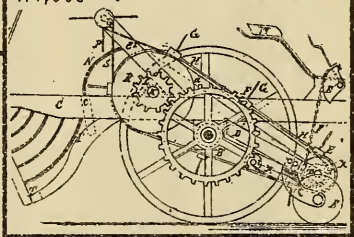
JAMES D. STURGES.
114,063. Apparatus for Cooling and Mixing Soap.



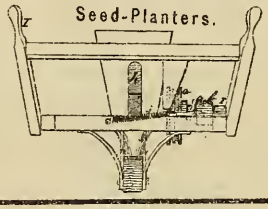
114,064. G. E. TAFT.
Drawing Frames.



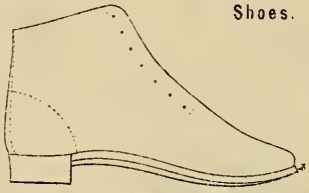
F. A. THAYER.
114,065 Hay-Rakes and Tedders.



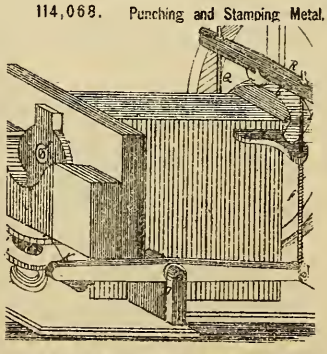
114,066. TURNER & WILKINSON.
Seed-Planters.



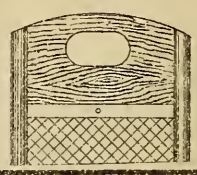
114,067. C. E. TYLER.
Shoes.



I. VAN HAGEN.
114,068. Punching and Stamping Metal.

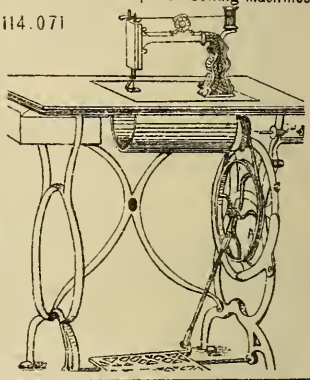


114,070. H. C. WHITE.
Graters.

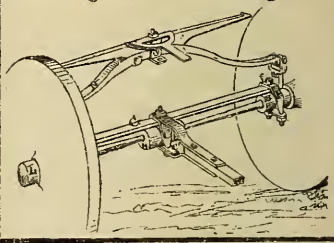


114,069
JOHN MURRAY WALLACE.
RECOLORING FABRICS.

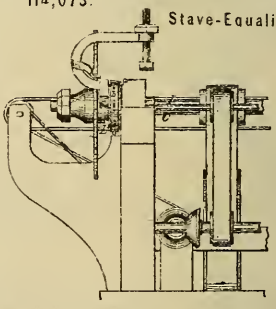
F. E. WHITESIDE.
Stops for Sewing-Machines.
114,071



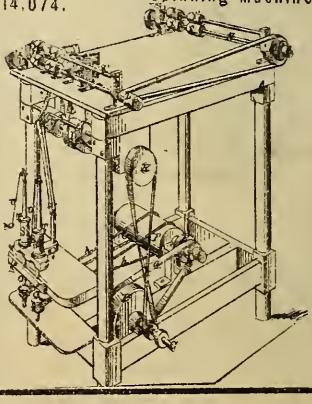
ELI WIGLE. 114,072.
Running-Gear for Carriages.



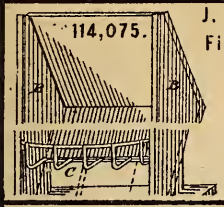
114,073. H. S. WILEY
Stave-Equalizers



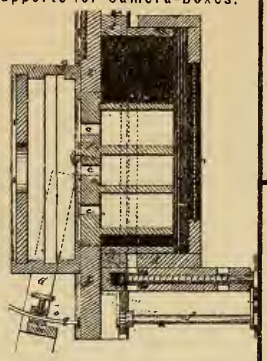
S. M. WILLIAMS & H. M. WILLIAMS.
114,074. Spinning-Machines.



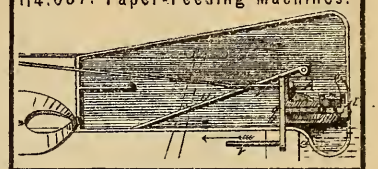
114,075. J. E. WOOD. Fire-Places.



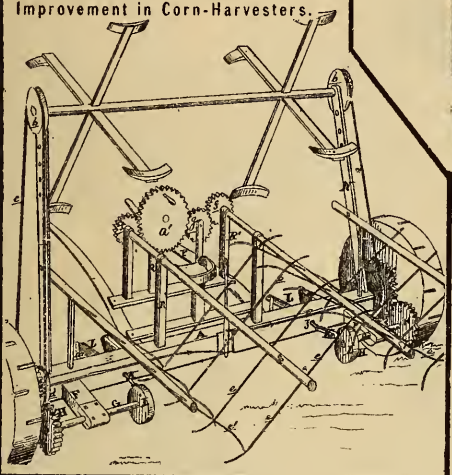
O. ACKERMAN. Supports for Camera-Boxes. 114,082.



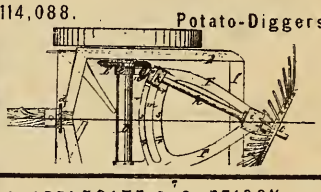
ANDREWS, RANDALL & CLAGUE. 114,087. Paper-Feeding Machines.



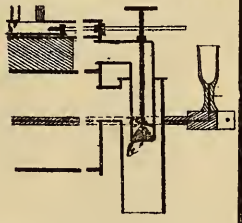
114,076. A. N. WOODARD. Improvement in Corn-Harvesters.



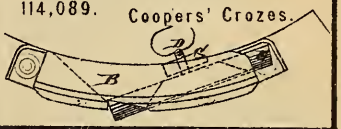
S. E. ANTHONY. 114,088. Potato-Diggers



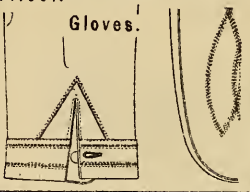
HENRY W. ADAMS. 114,083. Vacuum-Engines



J. APPLEGATE & C. FEIOCK. 114,089. Coopers' Crozes.

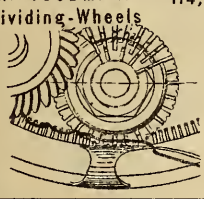


114,091. AVERY & AVERY. Gloves.

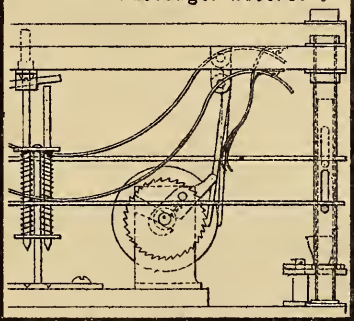


114,090. EDWARD T. ATWOOD. FLUXES FOR REFINING IRON

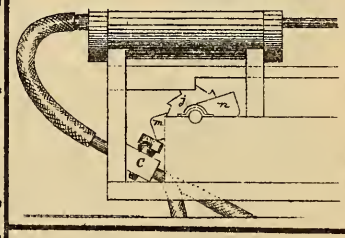
H. WOODMAN. 114,077. Dividing-Wheels



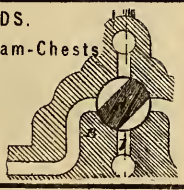
GEORGE H. ALDRICH. 114,084. Passenger-Recorders.



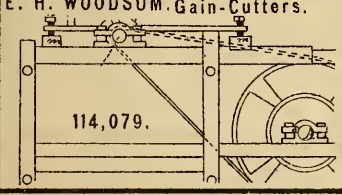
J. A. AYRES. 114,092. Elevating Water.



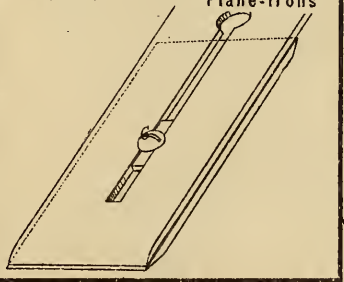
P. N. WOODS. Valves and Steam-Chests. 114,078.



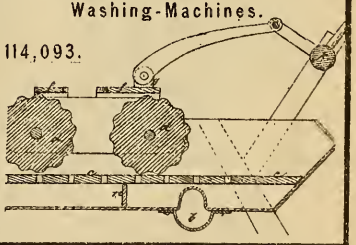
E. H. WOODSUM. Gain-Cutters. 114,079.



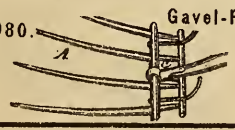
I. ALMY & S. A. DRAKE. 114,085. Plane-Irons



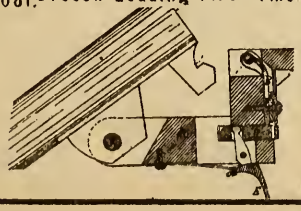
J. S. BALSLY. Washing-Machines. 114,093.



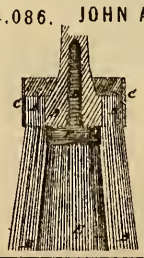
B. WRIGHT & W. C. PARK. 114,080. Gavel-Forks.



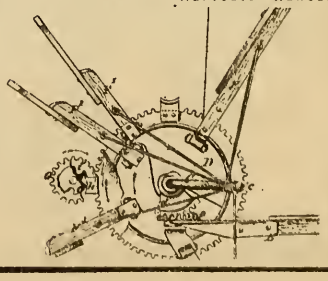
F. J. ABBEY & J. H. FOSTER. 114,081. Breech-Loading Fire-Arms



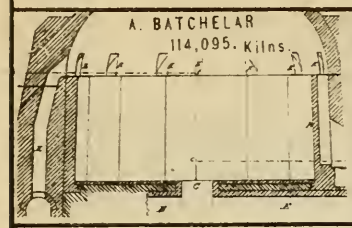
114,086. JOHN AMES, Jr. Paint-Brushes.



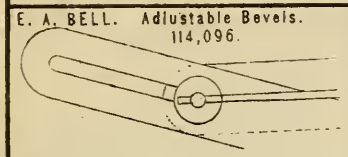
JOHN BARNES. 114,094. Harvester-Rakes.



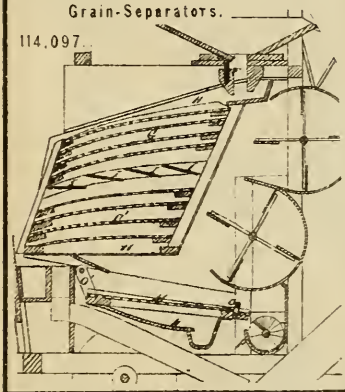
A. BATCHELAR
114,095. Kilns.



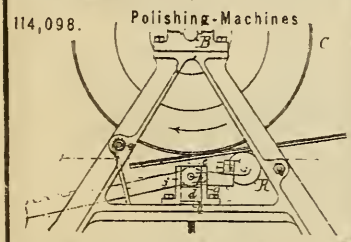
E. A. BELL. Adjustable Bevels.
114,096.



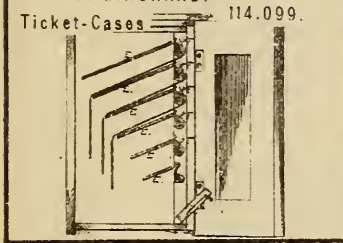
DANIEL BEST.
Grain-Separators.
114,097.



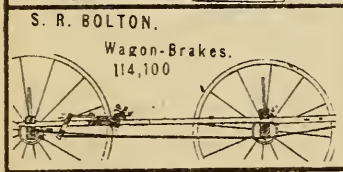
SAMUEL BEVAN.
114,098. Polishing-Machines



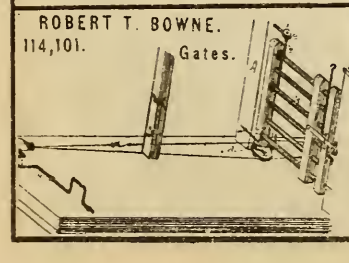
JOHN F. BIRCHARD.
Ticket-Cases 114.099.



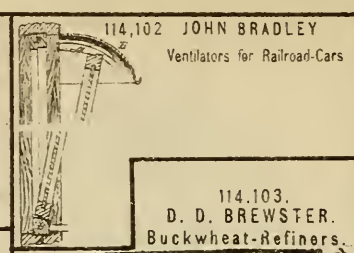
S. R. BOLTON.
Wagon-Brakes.
114,100



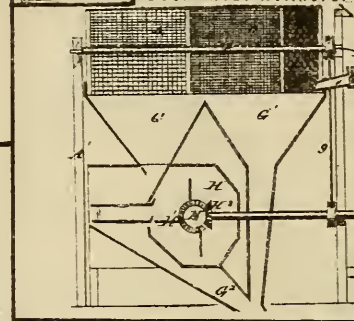
ROBERT T. BOWNE.
114,101. Gates.



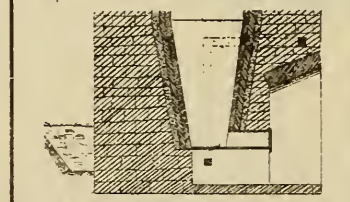
114,102 JOHN BRADLEY
Ventilators for Railroad-Cars



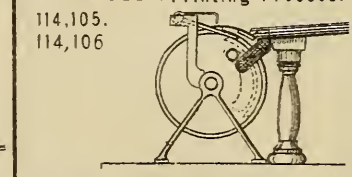
114.103.
D. D. BREWSTER.
Buckwheat-Refiners.



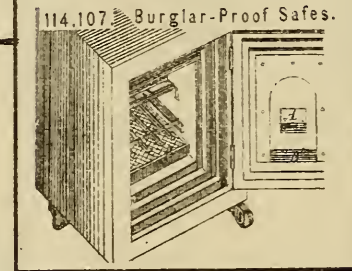
114,104. A. CALIFF. Lime-Ovens.



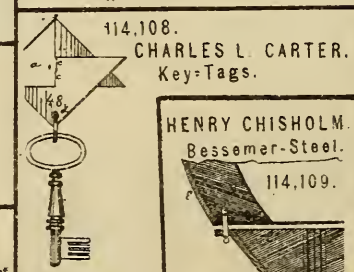
A. CAMPBELL. Printing-Presses.
114,105.
114,106



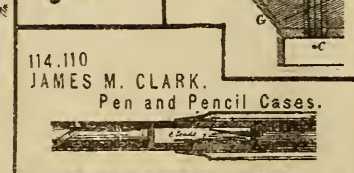
I. W. CAMPBELL, Sr.
114.107 Burglar-Proof Safes.



114.108.
CHARLES L. CARTER.
Key-Tags.

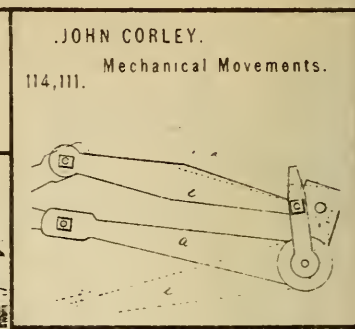


HENRY CHISHOLM.
Bessemer-Steel.
114,109.

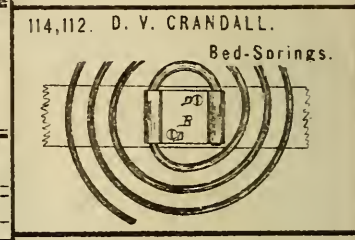


114.110
JAMES M. CLARK.
Pen and Pencil Cases.

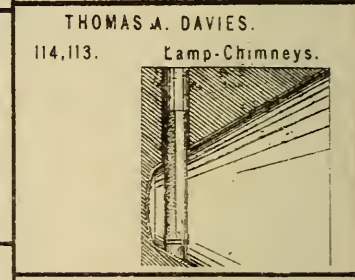
JOHN CORLEY.
Mechanical Movements.
114,111.



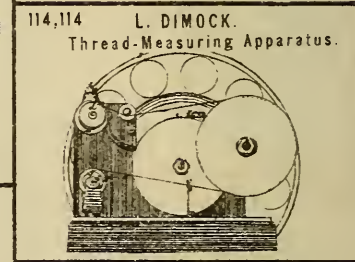
114,112. D. V. CRANDALL.
Bed-Springs.



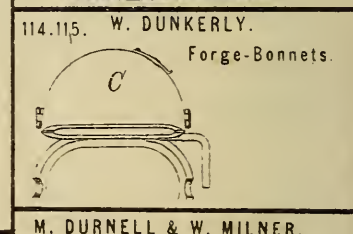
THOMAS A. DAVIES.
114,113. Lamp-Chimneys.



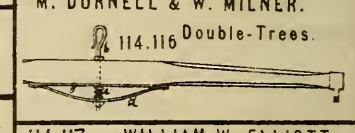
114,114 L. DIMOCK.
Thread-Measuring Apparatus.



114.115. W. DUNKERLY.
Forge-Bonnets.



M. DURNELL & W. MILNER.
114.116 Double-Trees.

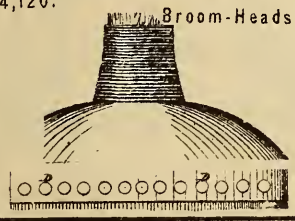


114,117 WILLIAM W. ELLIOTT.
Spark-Arresters.

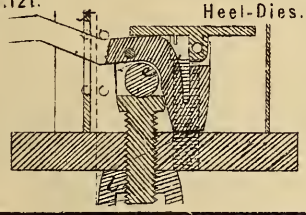
114,118.
ELLSWORTH, WILCOX & SEABURY
Improvement in Weather-Strips.

114,119. GEORGE A. ENGLAND.
Pocket Fire-Escapes.

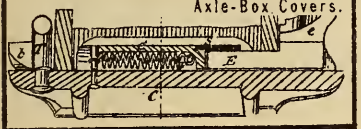
CHARLES FISCUS.
114,120. Broom-Heads.



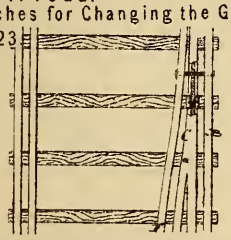
B. F. FISK & M. B. STONE.
114,121. Heel-Dies.



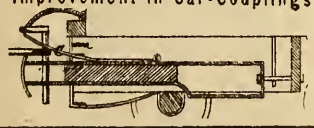
114,122. W. H. FITZ GERALD.
Axle-Box Covers.



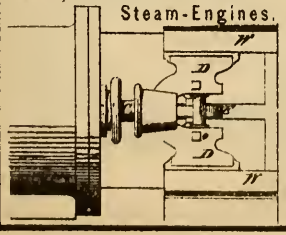
T. FOGG.
Switches for Changing the Gauge
114,123.



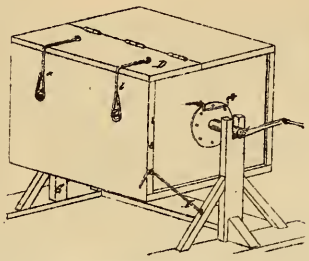
114,124. E. L. FOREMAN.
Improvement in Car-Couplings.



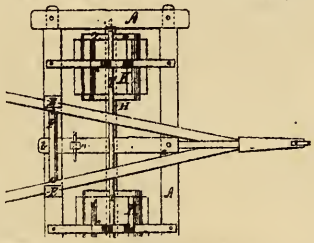
114,125 DAVID R. FRASER.
Steam-Engines.



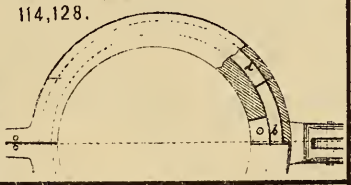
HENRY A. GASTON.
114,126. Washing-Machines



JAMES H. GATLING. 114,127.
Cotton and Corn-Stalk Choppers.

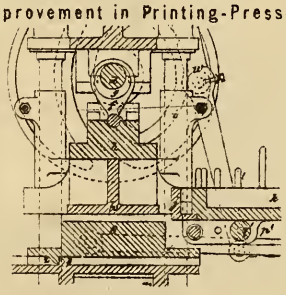


A. GILL.
Connections of Booms to Masts.
114,128.

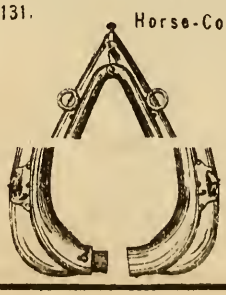


J. GOODRICH & H. J. COLBURN.
114,129. Self-Oiling Pulleys.

114,130. JOHN GOUGH.
Improvement in Printing-Presses.

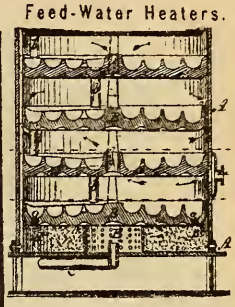


WILLIAM H. GRAY.
114,131. Horse-Collars.

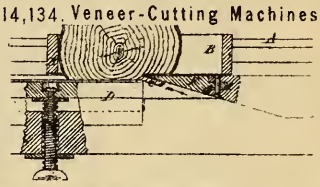


CHARLES S. S. GRIFFING.
114,132 Feed-Water Heaters.

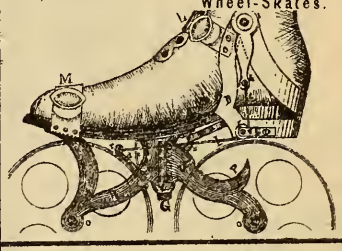
114,133, WILLIAM BARKERVILL HAMILTON.
IMPROVEMENT IN FERTILIZING COMPOUNDS.



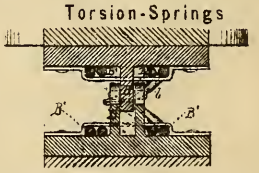
T. HANVEY.
114,134. Veneer-Cutting Machines.



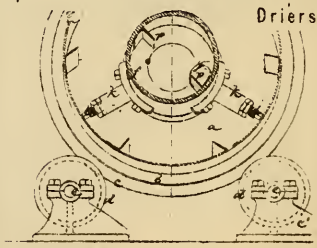
G. W. HAWK.
114,135. Wheel-Skates.



114,136. B. HERSHEY.
Torsion-Springs

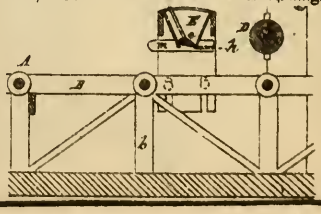


114,137 CHARLES H. HERSEY.
Driers.

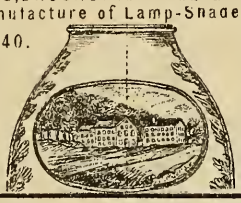


114,138. IRA HERSEY.
Telegraph-Poles.

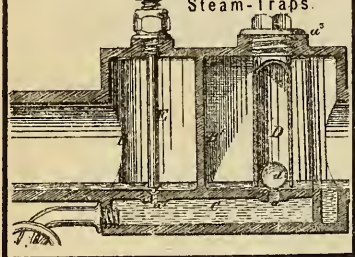
D. HITCHCOCK & W. GIBBS.
114,139. Manufacture of Roofing.



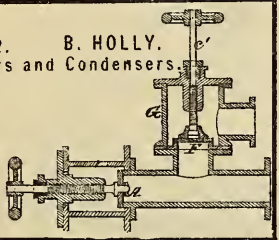
HOBBS, BROCKUNIER & LEIGHTON
Manufacture of Lamp-Shades.
114,140.



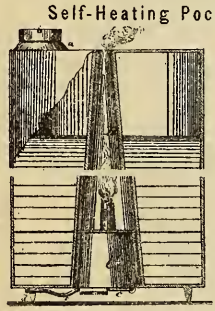
114,141 JAMES W. HODGES.
Steam-Traps.



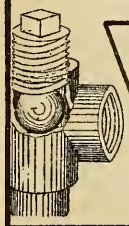
114,142. B. HOLLY.
Heaters and Condensers.



S. HUGHES. 114,143.
Self-Heating Pocket-Flasks.

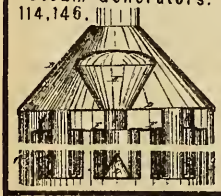


W. HUMPHREYS. 114,144.
Gas-Service Pipes



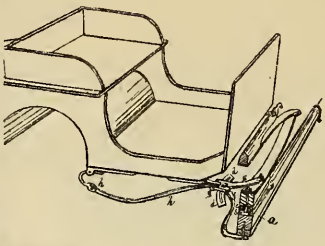
JOHN M. HUNTER.
114,145.
Shoe-Soles.

WILLIAM H. IVENS.
Steam-Generators.
114,146.

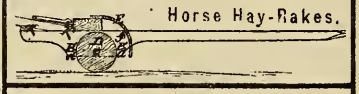


114,148
114,147.
E. W. IVES.
Carriage-Axles

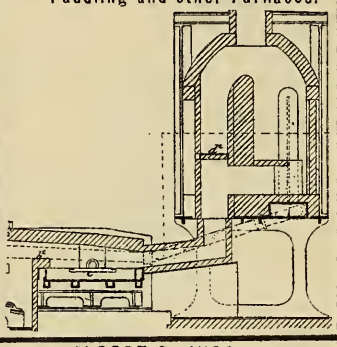
114,149. ROBERT JACK.
Vehicles.



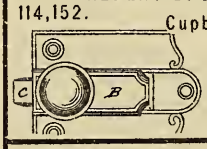
114,150. O. S. JARVIS.
Horse Hay-Rakes.



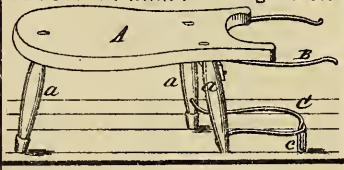
114,151 JONES, HOWSON & GJERS.
Puddling and other Furnaces.



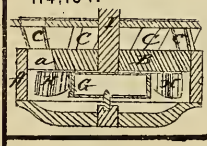
ALBERT D. JUDD.
114,152.
Cupboard-Latches.



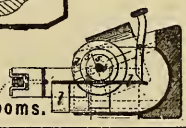
114,153.
JUDSON N. KNAPP Milking-Stools.



114,154. JOHN L. KURTZ.
Water-Wheels.

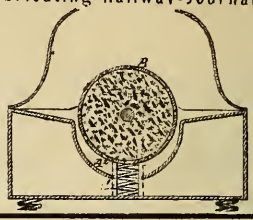


114,155.
J. KUTTNER.
Shuttles for Looms.

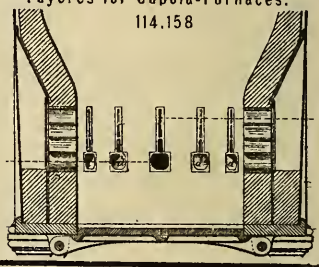


R. LAIDLAW & JOHN THOMSON.
114,156. Apparatus for Exhausting Gas

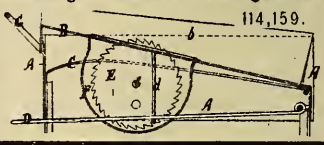
114,157 CARRIE R. LAMAN.
Lubricating Railway-Journals.



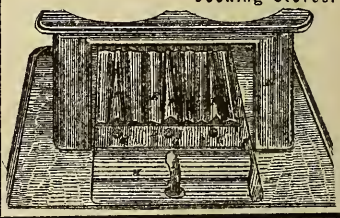
F. LAWRENCE.
Tuyeres for Cupola-Furnaces.
114,158



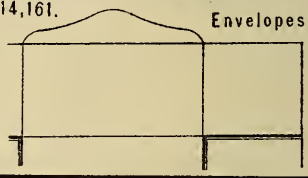
JOHN LEE, Jr. & JOHN LEE, Sr
Band-Cutting Attachments for Thrashing-Machines.
114,159.



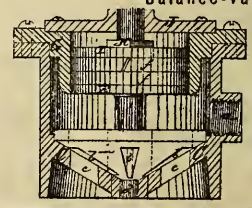
114,160. WILLIAM D. C. LLOYD.
Cooking-Stoves.



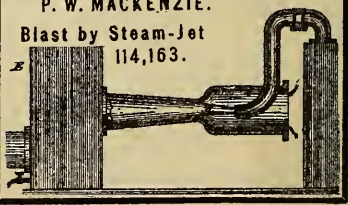
P. LOCKWOOD.
114,161.
Envelopes.



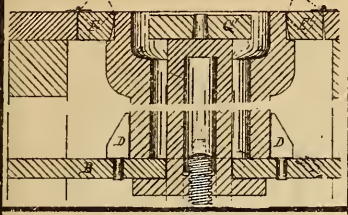
K. H. LOOMIS.
114,162.
Balance-Valves.



P. W. MACKENZIE.
Blast by Steam-Jet
114,163.

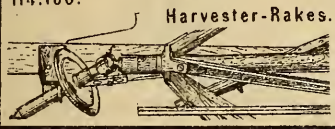


T. MADELEY.
114,164. Molds for Sewer-Pipe.



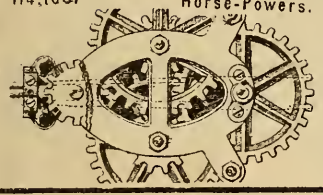
114,165. J. P. MANNY.
Harvester-Rake.

114,166. JOHN P. MANNY.
Harvester-Rakes.

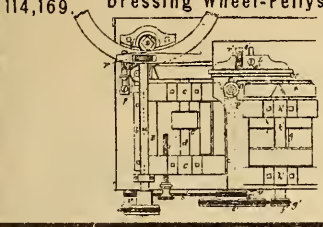


114,167. E. W. MARBLE.
Shuttles for Looms.

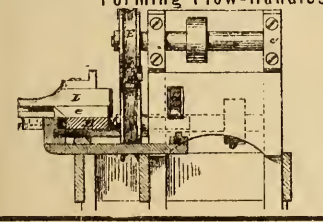
114,168. D. G. MARDEN.
Horse-Powers.



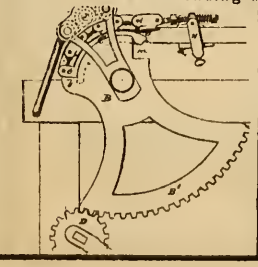
114,169. D. P. MARSTON.
Dressing Wheel-Fellys.



114,170. E. G. MATTHEWS.
Forming Plow-Handles.

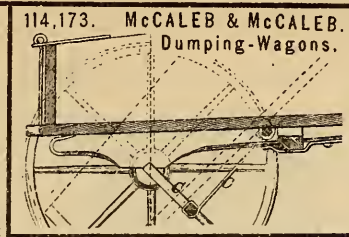


114,171. E. G. MATTHEWS.
Wood-Bending Machines.

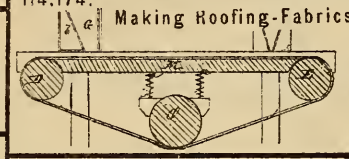


114,172. FREDERICK E. MATTHEWS.
COMPOSITIONS FOR PAVEMENTS.

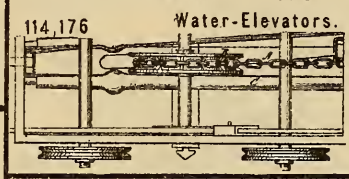
114,173. McCALEB & McCALEB.
Dumping-Wagons.



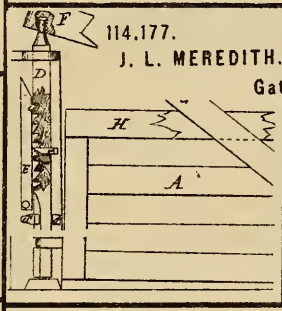
114,174. McCONNELL & PIERCE.
Making Roofing-Fabrics



McPHEETERS & McPHEETERS.
114,176 Water-Elevators.

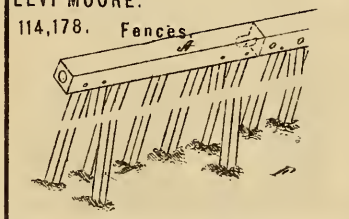


114,177.
J. L. MEREDITH.
Gates.

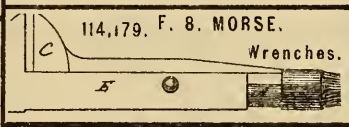


114,175. WM. P. McCONNELL.
METALS FROM ORES.

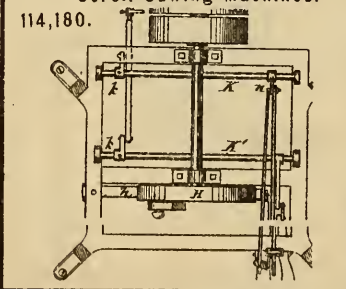
LEVI MOORE.
114,178. Fences.



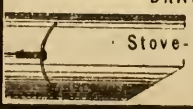
114,179. F. 8. MORSE.
Wrenches.



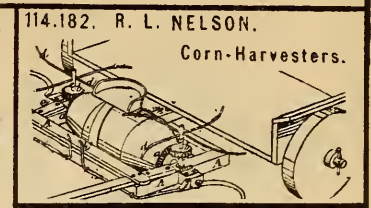
J. S. MOSELEY.
Scroll-Sawing-Machines.
114,180.



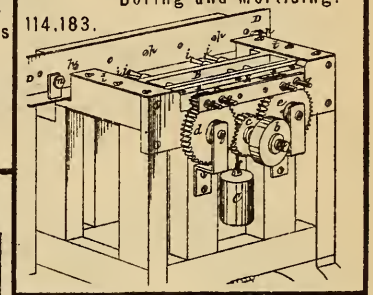
DANIEL MURPHY.
Stove-Pipe Cleaners.
114,181.



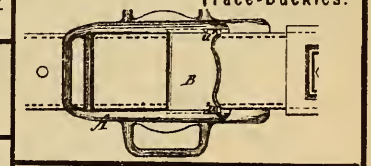
114,182. R. L. NELSON.
Corn-Harvesters.



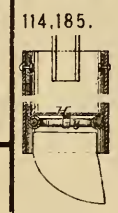
R. L. NELSON.
Boring and Mortising.
114,183.



114,184 GEORGE OLDHAM, Jr.
Trace-Buckles.

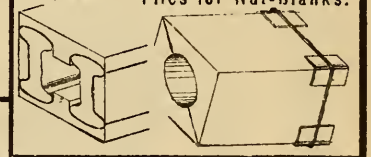


THOMAS ORCHARD.
114,185. Earth-Augers.



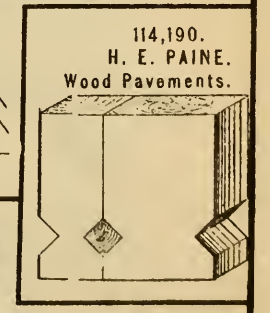
114,186.
JOHN W. OSBORNE.
Steeping-Tanks.

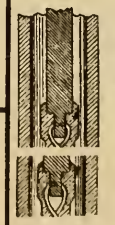
114,187.
114,188. J. OSTRANDER.
Piles for Nut-Blanks.



114,189.
J. A. OTIS.
Fence-Posts.

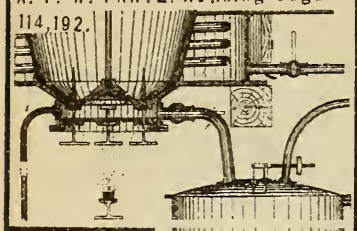
114,190.
H. E. PAINE.
Wood Pavements.

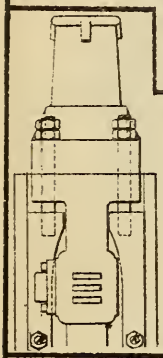




114,191.
D. D. PARMELEE.
Electroplating

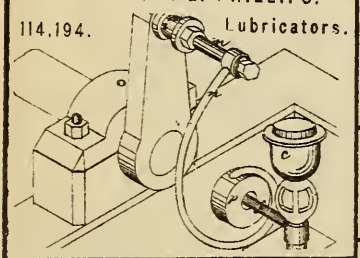
A. F. W. PARTZ. Refining Sugar.
114,192.



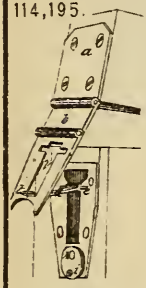


114,193.
C. S. PATTISON.
Drill-Cylinders.

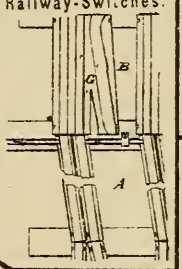
WILLIAM E. PHILLIPS.
114,194. Lubricators.



L. RANSOM.
Trunk-Fastenings.
114,195.

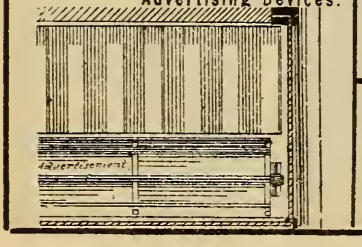


114,196.
P. V. M. RAYMOND.
Railway-Switches.

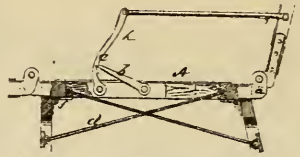


Sewing-Machines.
114,197. GEORGE REHFUSS.

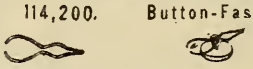
W. H. REIFF. 114,198.
Advertising Devices.



114,199. F. W. RICHARDSON.
Folding-Chairs.

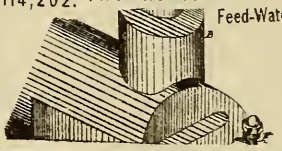


A. M. RICHMOND.
114,200. Button-Fasteners.



WILLIAM G. RILEY.
114,201. Trace-Buckles.

114,202. THOMAS ROBERTS.
Feed-Water

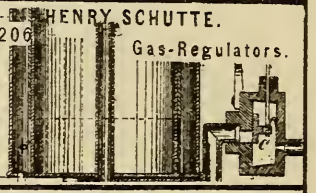


114,203. M. ROHRER. Harvesters.

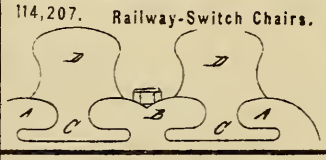
ROWLAND & ENGLISH
Wire-Thread for Sewing Leather.
114,204.

114,205. A. G. SAFFORD
Pole-Adjusters

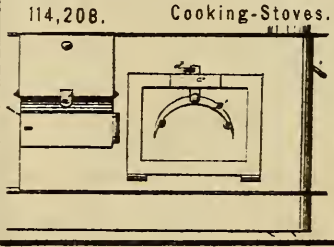
HENRY SCHUTTE.
114,206 Gas-Regulators.



G. H. SCOUGALE.
114,207. Railway-Switch Chairs.

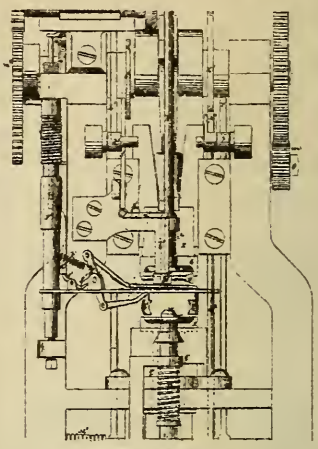


J. SEGONDY & M. RAVOLD.
114,208. Cooking-Stoves.

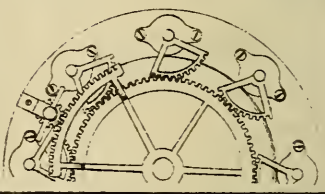


SHOREY & BUTLER.
114,209 Slats for Window-Shades.

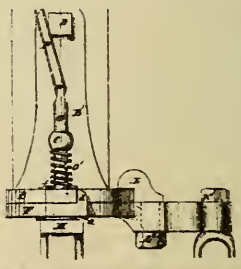
114,210. T. J. SLOAN.
Porcelain-Knob Machines.



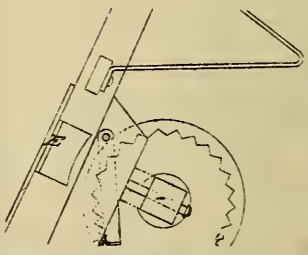
114,211. E. L. SMALL.
Water-Wheels



SMALL, MATTHEWS & HOLBROOK
Swivel-Clevises for Plows.
114,212.

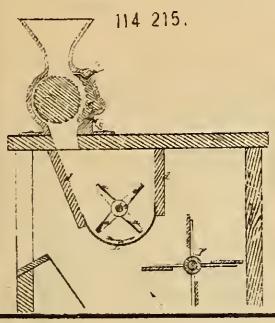


114,213. A. V. SMITH.
Store-Trucks

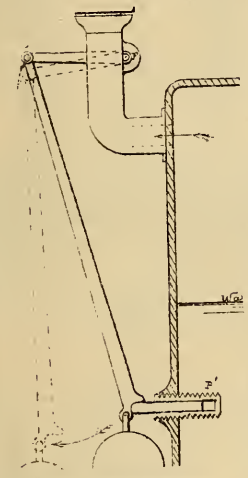


114,214. SMITH & SMITH.
Buckles.

JAMES W. SMITH.
Grist-Mills and Cotton-Seed Hullers.
114 215.



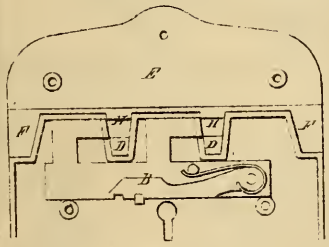
JOHN STANTON.
114,216. Low-Water Alarms.



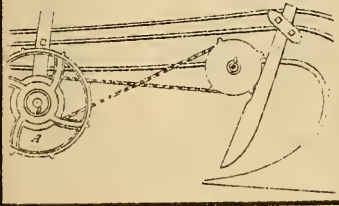
114,219. JOHN W. SELL. FIRE-KINDLINGS.

114,218. BENJM. D. STEVENS, D. D. S. RUBBER VENEERS.

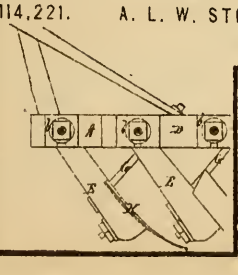
114,217. JOSEPH STANTON
Trunk-Locks.



W. H. STONE.
114,220 Plow-Colters

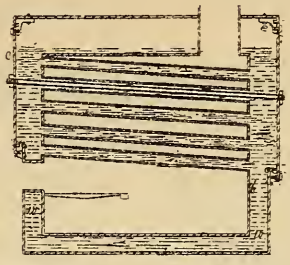


114,221. A. L. W. STROUD.
Plow

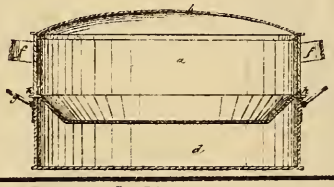


114,223. F. R. TAYLOR. HAIR-DRESSINGS.

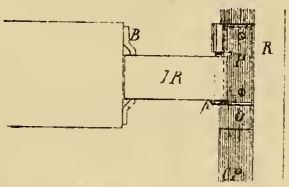
114,222. DANIEL SULLIVAN.
Boilers.



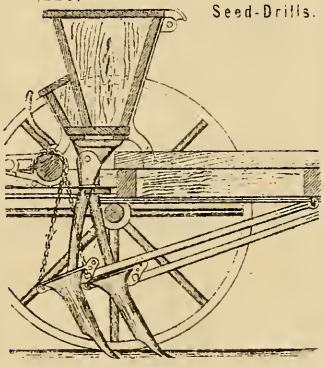
114,224. G. W. TAYLOR
Ash-Sifters.



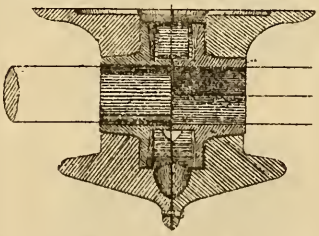
A. E. THAYER.
114,225. Spring Bed-Bottoms.



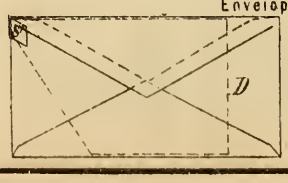
114,226. JOHN H. THOMAS.
Seed-Drills.



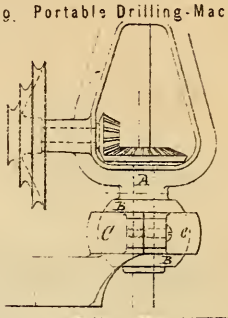
JOHN H. THOMAS 114,227
Feed-Rollers for Grain-Drills.



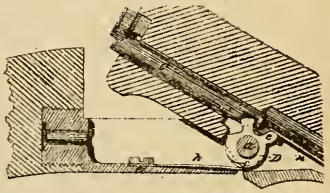
J. P. THOMPSON.
114,228. Envelopes.



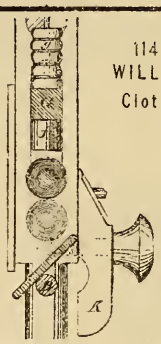
WILLIAM H. THORNE.
114,229. Portable Drilling-Machines.



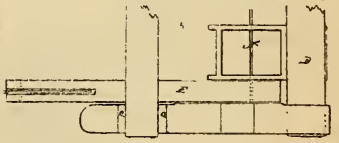
F. TIESING & C. GERNER
114,230 Breech-Loading Fire-Arms.



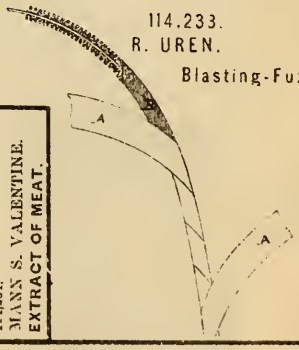
114,231.
WILLIAM H. TOWERS.
Clothes-Wringers.



114,232. J. T. TROWBRIDGE.
Seeders and Cultivators

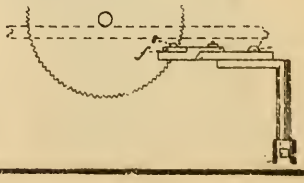


114,233.
R. UREN.
Blasting-Fuzes.

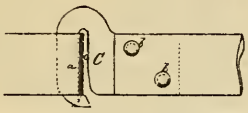


114,234. MANN S. VALENTINE. EXTRACT OF MEAT.

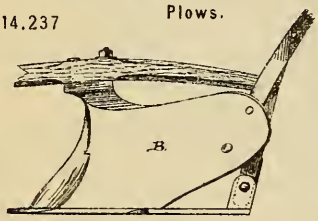
DAVID W. WASHBURN
114,235. Guides for Circular-Saws.



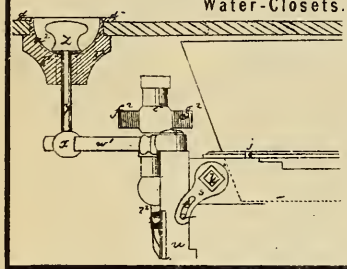
114,236. FRANCIS WATKINS.
Bale-Ties.



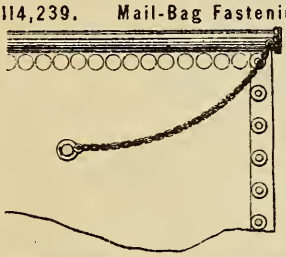
ADAM WEABER.
114,237 Plows.



D. WELLINGTON.
114,238. Water-Closets.



M. V. B. WHITE.
114,239. Mail-Bag Fastenings.



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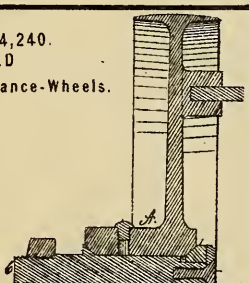
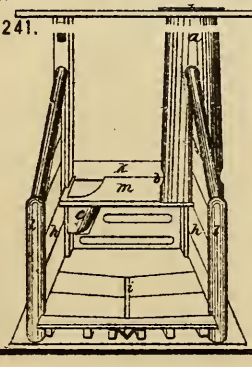
F. W. WILD
Balance-Wheels.

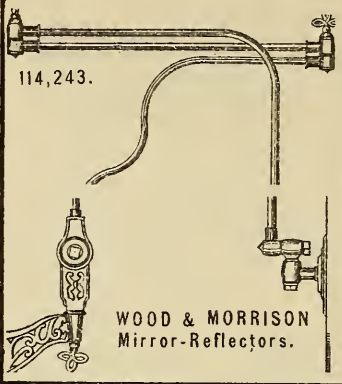


JOHN WILKINSON. Horse-Stalls.
114,241.



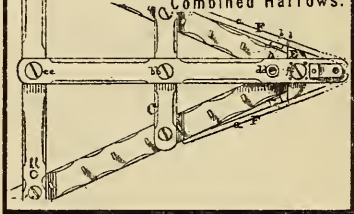
114,242. RICHARD H. WINSBOROUGH.
PREPARATION AND APPLICATION OF PYROXYLINE FOR DENTAL PLATES.

114,243.

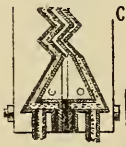


WOOD & MORRISON
Mirror-Reflectors.

114,244. C. WYCKOFF, Jr.
Combined Harrows.



J. YATES & E. DEUELL.
Condensers for Stills



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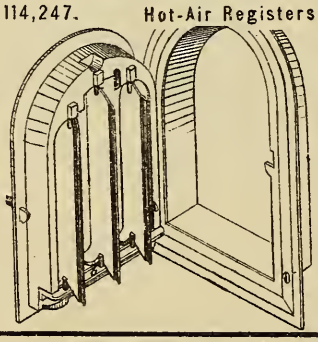
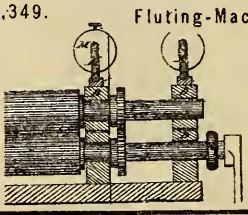
114,246.
ROBERT W. YOUNG.
COMPOSITION BLACKBOARDS.

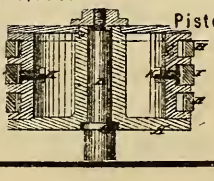
WILLIAM YOUNG.
114,247. Hot-Air Registers.



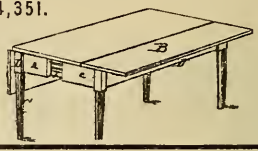
HENRIETTA H. COLE.
4,349. Fluting-Machines.



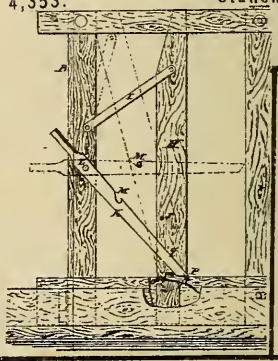
4,350. ORRIN COLLIER.
Piston-Packings.



J. DOURSON & C. HORN.
Fall-Leaf Extension-Tables
4,351.

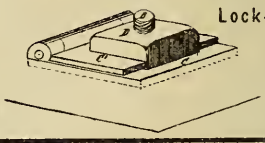


WALTER C. GIFFORD.
4,353. Stanchions.

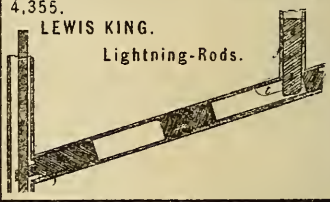


CANCELLED.
4,352

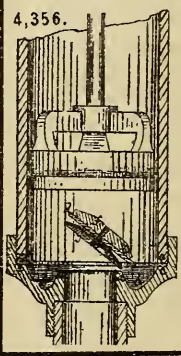
4,354. JAMES H. GRIDLEY.
Lock-Nuts



4,355.
LEWIS KING.
Lightning-Rods.



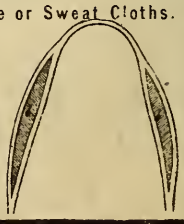
WILLIAM H. POLLARD.
4,356. Pump-Valves.



4,357.

CONDIT PRUDDEN.
Machines for Bending Wood.

ROBERT SPENCER.
Saddle or Sweat Cloths.
4,358.



ILLUSTRATIONS OF PATENTS

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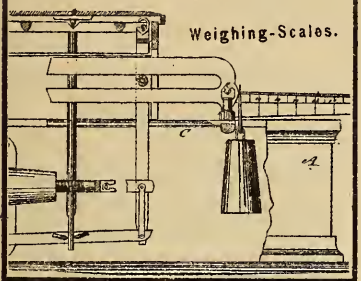
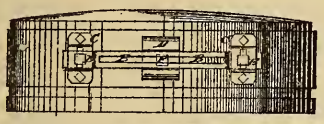
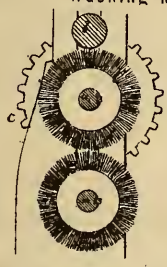
114,248 D. D. ALLEN.
Weighing-Scales.



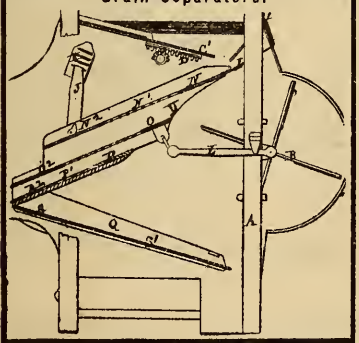
114,249. JOHN A. ALTHOUSE.
Millstone-Balances.



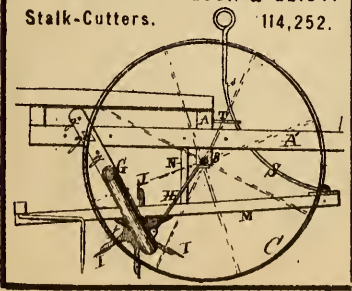
114,250. A ASSMANN.
Washing-Machines.



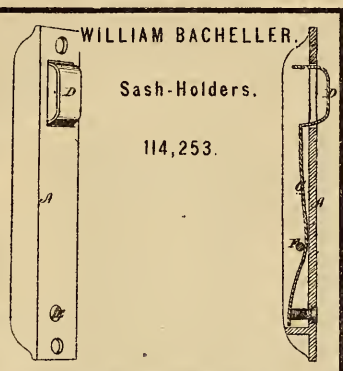
114,251. S. K. AYRES.
Grain-Separators.



BABCOCK, STILSON & LEIDY.
Stalk-Cutters. 114,252.

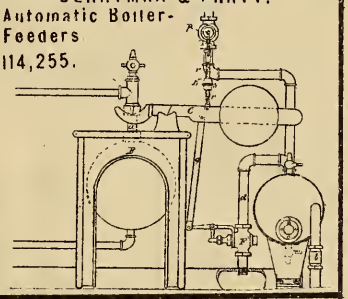


WILLIAM BACHELLER.
Sash-Holders.
114,253.

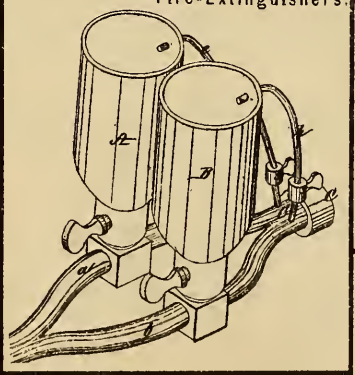


N. BARNUM & R. S. BARNUM.
Cording Attachments for Sewing-Machines.
114,254.

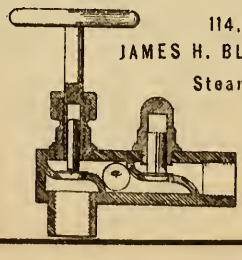
BERRYMAN & PRATT.
Automatic Boiler-Feeders
114,255.



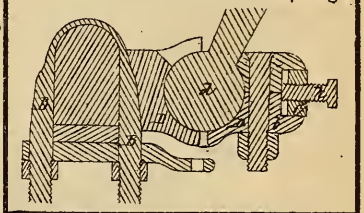
114,256. C. BLAKE.
Fire-Extinguishers.



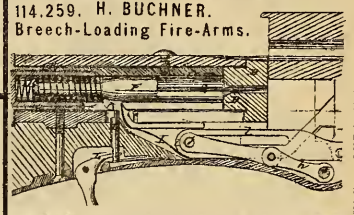
114,257.
JAMES H. BLESSING.
Steam-Traps.



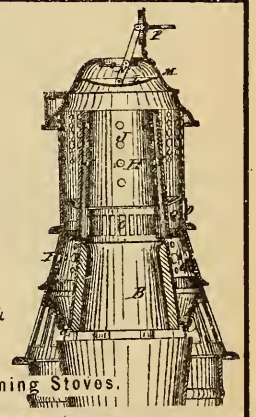
114,258 GEORGE I. BRADLEY.
Thill-Couplings



114,259. H. BUCHNER.
Breech-Loading Fire-Arms.

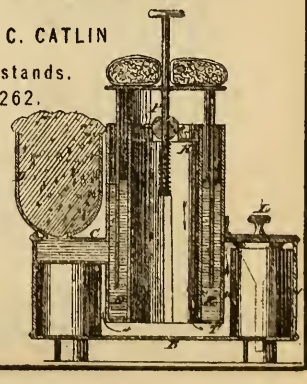


114,260
BUSSEY & HAMLIN.
Base-Burning Stoves.

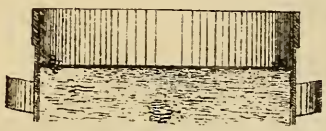


WILLARD M. CARPENTER.
Infants' Shoes.
114,261.

S. C. CATLIN
Inkstands.
114,262.

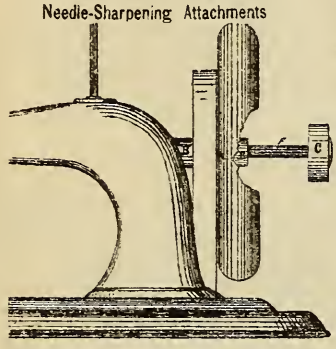


114,263. A. CHANDLER.
Cheese-Hoop Flanges.

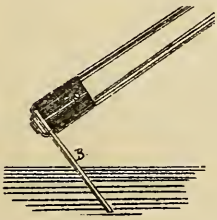


114,264. ALBION R. CLAPP.
MEDICAL PURPOSES.

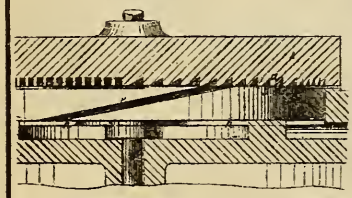
114,265 CELIA P. CLARK.
Needle-Sharpening Attachments



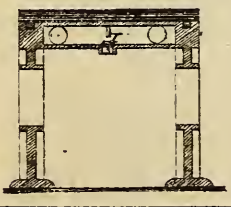
114,266
I. COOK & J. T. BEVER. Hoes.



114,267.
THOMAS COOK & JOHN WATSON.
Meters.

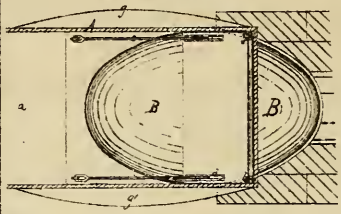


114,268. C. B. COTTRELL.
Printing-Presses.

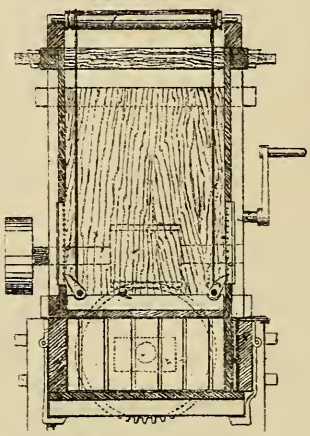


114,269. H. CROCKER, Jr.
Whiffletree-Couplings

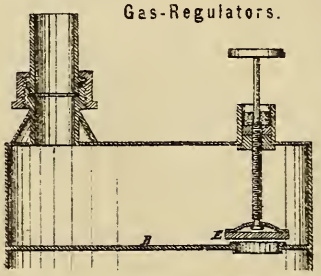
114,270. THOMAS DARK.
Stench-Traps for Street-Sewers.



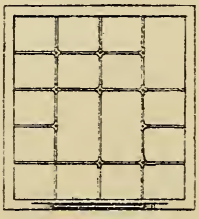
HENRY J. DAVIS 114,271
Cotton-Presses.



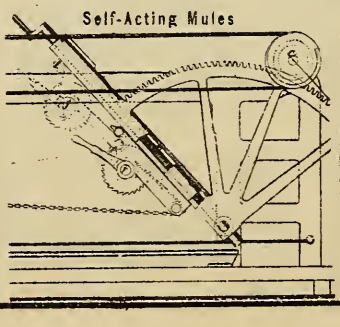
114,272. O. DEAN.
Gas-Regulators.



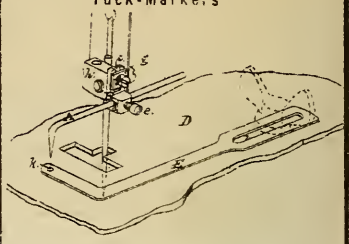
114,273. A. T. DE PUY.
Printers' Cases.



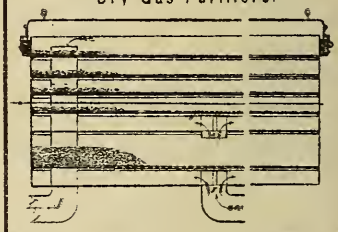
114,274 JOHN DODD.
Self-Acting Mules



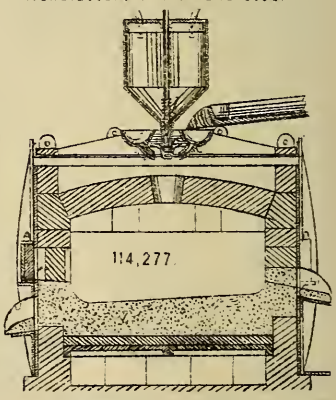
114,276. G. L. DULANEY.
Tuck-Markers



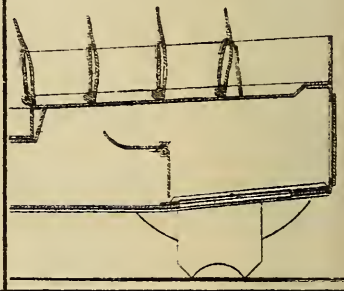
114,275. EDWARD DUFFEE.
Dry-Gas Purifiers.



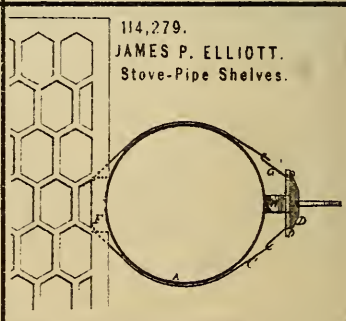
Z. S. DURFEE.
Manufacture of Iron and Steel



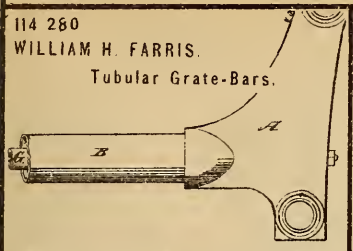
114,278. STEPHEN P. DYER.
Evaporators.



114,279.
JAMES P. ELLIOTT.
Stove-Pipe Shelves.



114 280
WILLIAM H. FARRIS.
Tubular Grate-Bars.



114,281. SAMUEL C. FOSTER.
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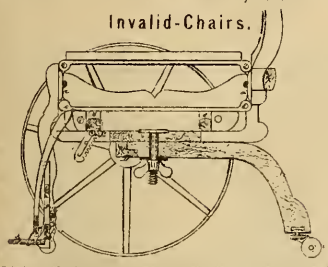
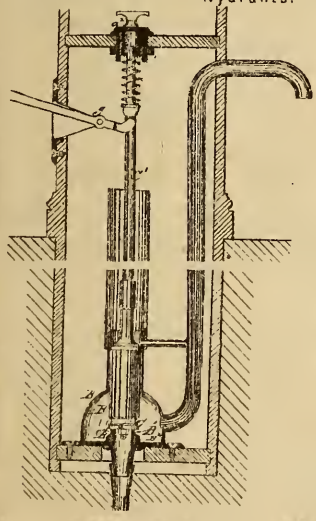
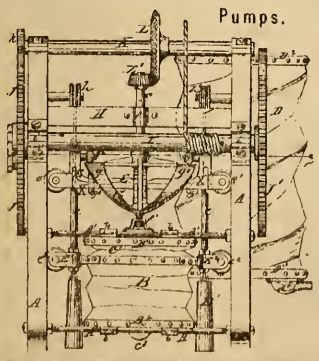
GEORGE T. FOWLER. 114,282.
Invalid-Chairs.



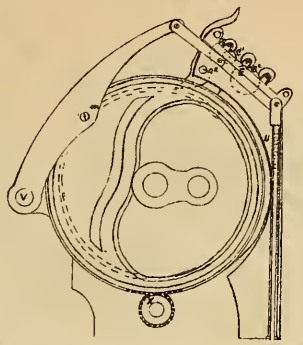
114,283. J. P. GALLAGHER.
Hydrants.



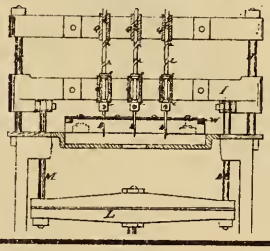
114,284. J. P. GALLAGHER.
Pumps.



114,285. M. GALLY.
Printing-Presses.

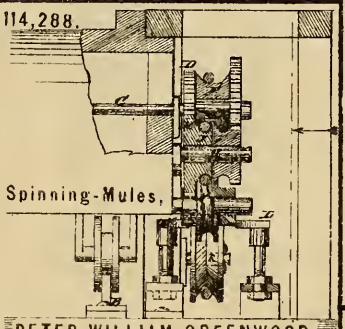


114,286. JOHN GLASS.
Book-Binding Machines.



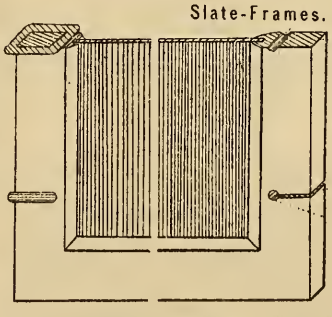
114,287. JOHN GREACEN, JR.,
MANUFACTURE OF RUBBER.

114,288.

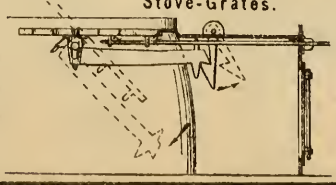


Spinning-Mules,
PETER WILLIAM GREENWOOD.

114,289. W. W. HAMILTON.
Slate-Frames.

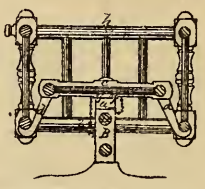


114,290. HARVEY & FOOTE.
Stove-Grates.

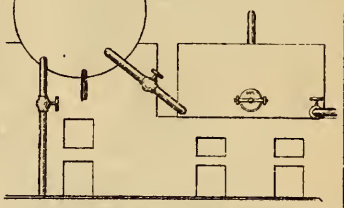


114,291. B. A. HAYCOCK.
Draught-Promoters

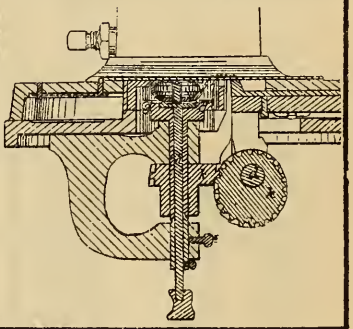
114,292. W. T. HAZARD.
Cribs or Cradles.



114,293. S. A. HILL & C. F. THUMM.
Distilling Hydrocarbon Oils

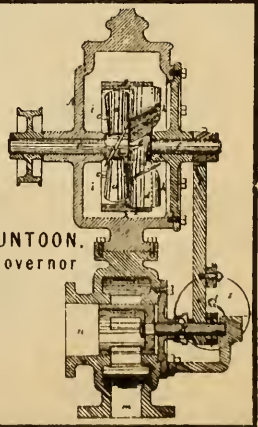


114,294 J. A. HOUSE & H. A HOUSE
Sewing-Machines.



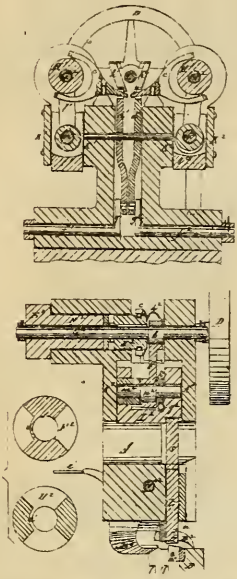
114,295. JOHN HOWARTH.
Apparatus for Evaporating Liquids

114,296.



R. K. HUNTOON.
Engine-Governor

114,297 Ivens & Brooke. Punching Metals.



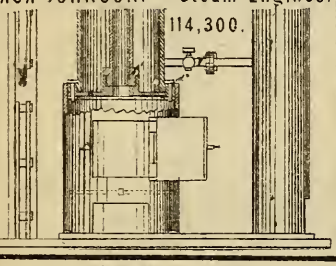
114,298. JAMES IVES.

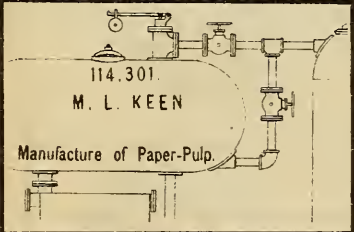
Lubricating Axles.

114,299. JAY AND RAFTEP
CAST-STEEL.

ASA IOHNSON. Steam-Engines.

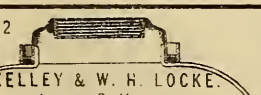
114,300.





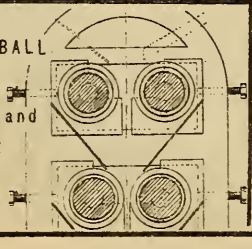
114,301.
M. L. KEEN
Manufacture of Paper-Pulp.

114,302



H. KELLEY & W. H. LOCKE.
Lamp-Collars.

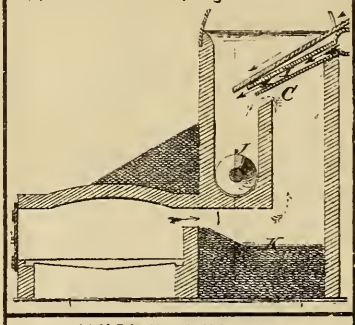
F. J. KIMBALL.



Crushing and Grinding

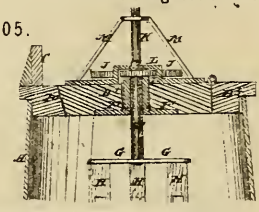
114,303

114,304. F. J. KIMBALL.
Apparatus for Drying Phosphates

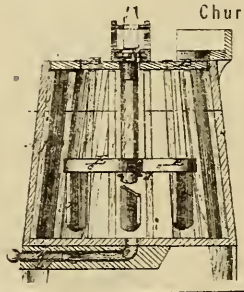


JAMES M. KIMBALL.
Washing-Machines.

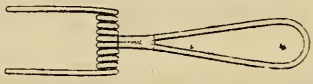
114,305.



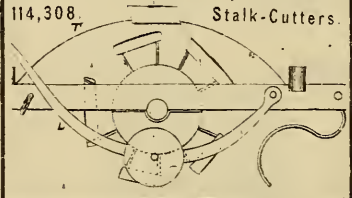
114,306. JOHN J. KIMBALL.
Churns



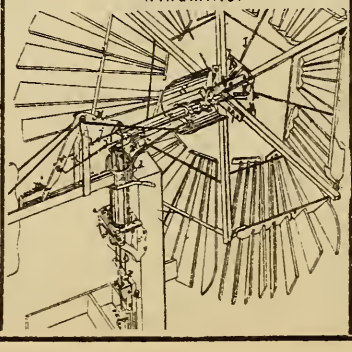
114,307. J. H. KNOWLES.
Weft-Forks for Looms.



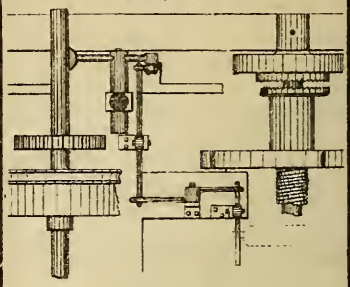
M. K. LEWIS & J. MUNGER.
114,308. Stalk-Cutters.



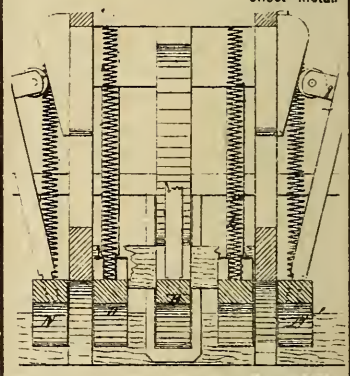
114,309. MABIE & LITTLE.
Windmills.



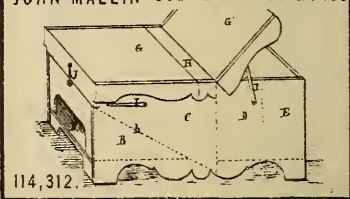
114,310. H. MACON.
Belt-Shipping Devices



114,311. J. R. MAITLAND.
Machines for Cutting and Bending Sheet Metal.

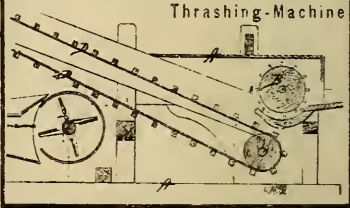


JOHN MALLIN Coal and Wood Boxes



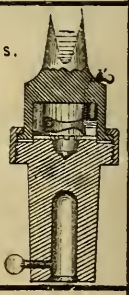
114,312.

114,313. M. H. MANSFIELD.
Thrashing-Machine

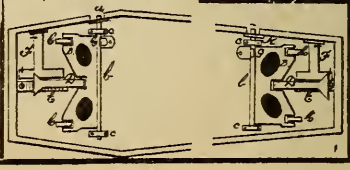


CHARLES MANSON.
Bit-Stocks.

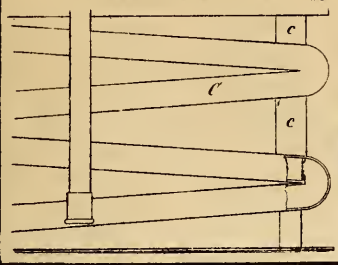
114,314.



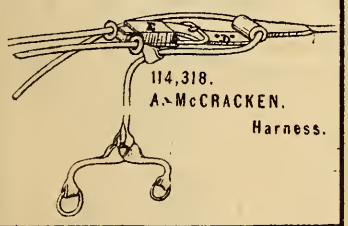
114,315.
M. R. MARGERUM.
Corpse-Preservers.



114,316. LOUIS MARKS.
Carbureters for Air and Gas.



114,317.
C. MATHER.
Lubricators.

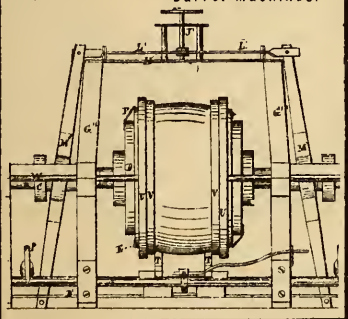


114,318.
A. McCRACKEN.
Harness.

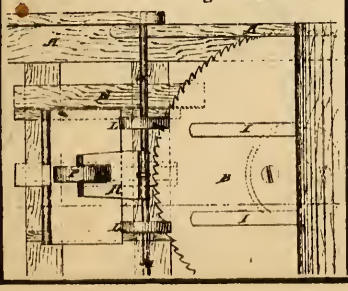
114,319. F. MENZER.
Extension-Tables.

114,320 CANCELED.

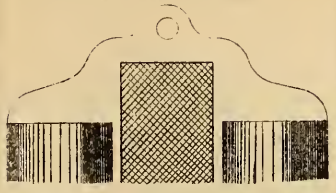
W. R. MIDDLETON & E. MIDDLETON.
114,321. Barrel-Machines.



114,322. U. D. MIHILLS.
Shingle-Machines.

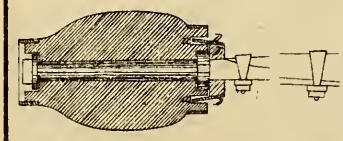


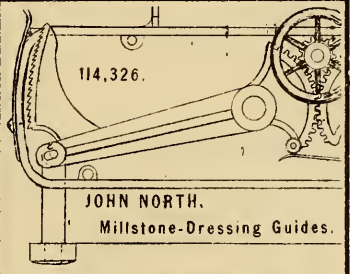
114,323. JOSEPH MUSGROVE.
Sheet-Metal Match-Safes.



114,325. ELIAKIM P. NEWTON.
ROOFING COMPOSITIONS.

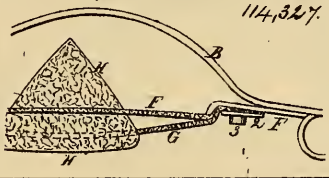
GEORGE H. NEVENS. 114,324.
Sand-Caps for Hubs for Vehicles



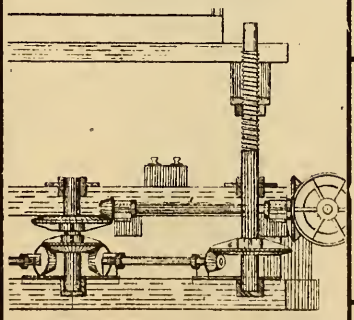


114,326.
JOHN NORTH.
Millstone-Dressing Guides.

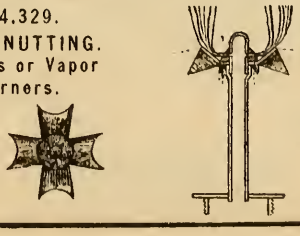
Northrop & Emmons.
Alluring Hat Bodies.
114,327.



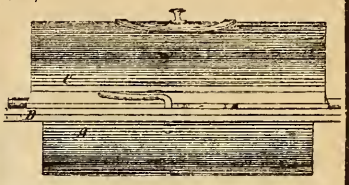
114,328. G. T. Nutter.
Raising Cars & Trucks.



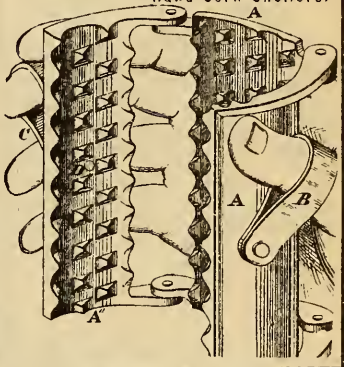
114,329.
R. NUTTING.
Gas or Vapor
Burners.



114,330. A. OBST. Coffee-Roasters.



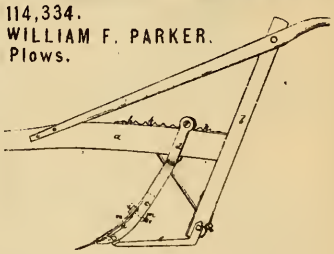
114,331 C. M. O'HARA.
Hand Corn-Shellers.



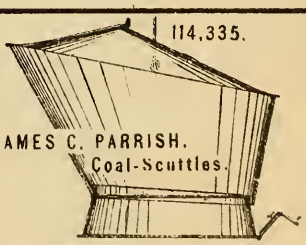
C. H. PALMER. 114,332.
Manufacture of Split-Needles

114,333.
I. E. PALMER.
Tackle-Blocks.

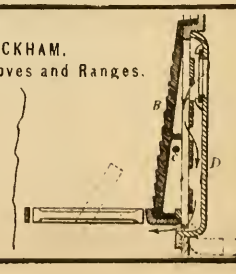
114,334.
WILLIAM F. PARKER.
Plows.



114,335.
JAMES C. PARRISH.
Coal-Scuttles.

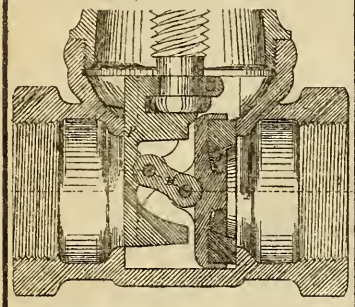


114,336.
JOHN S. PECKHAM.
Cooking-Stoves and Ranges.

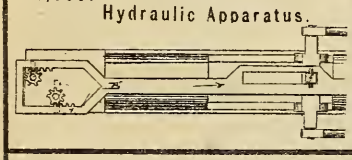


114,337.
EDWARD L. PERRY.
Rubber Play-Pipes for Hose.

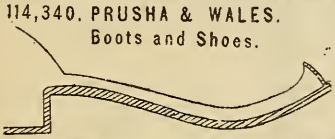
114,338. GEORGE PIERCE.
Stop-Cock Valves.

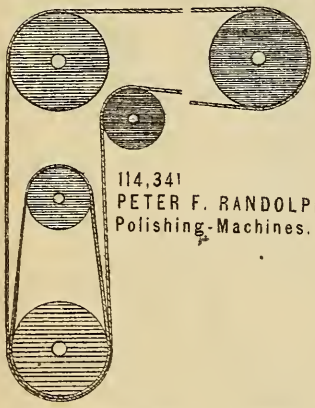


114,339. P. F. POWERS.
Hydraulic Apparatus.



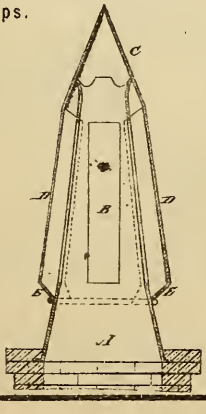
114,340. PRUSHA & WALES.
Boots and Shoes.



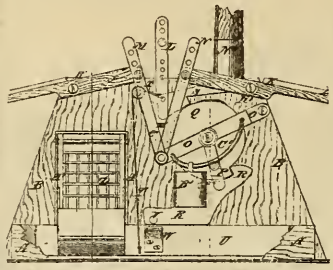


114,341
PETER F. RANDOLPH.
Polishing-Machines.

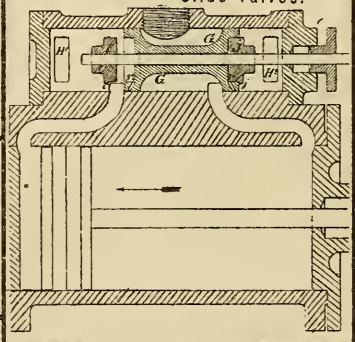
114,342. WILLIAM RICHARDS.
Chimney-Tops.



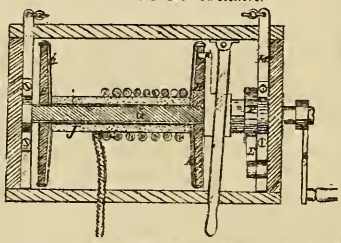
114,343. JAMES H. RICHARDSON.
Animal and Game Traps.



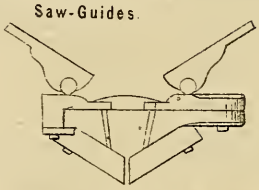
114,344. A. K. RIDER.
Slide-Valves.



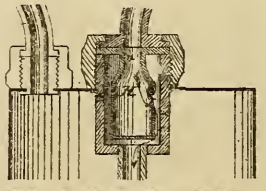
114,345. WILLIAM J. RIPLEY.
Clothes-Line Protectors and Stretchers.



114,346. A. RITTENHOUSE.
Saw-Guides.

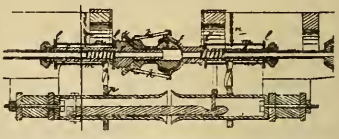


114,347. A. R. ROBB.
Water-Boilers.

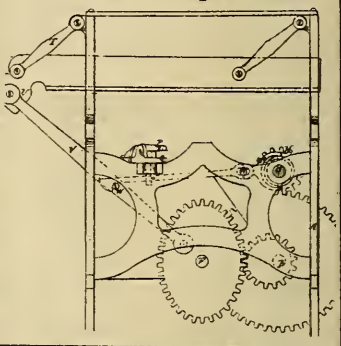


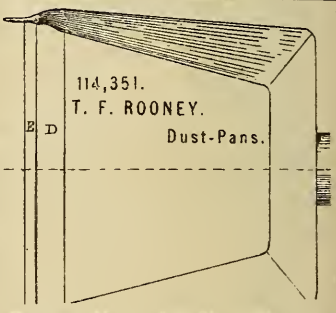
114,348. E. H. ROBBINS.
Pipe-Wrenches.

114,349. HENRY R. ROBBINS.
Railroad-Car Heaters.



114,350. THOMAS C. ROBINSON.
Paper-Cutting Machines.

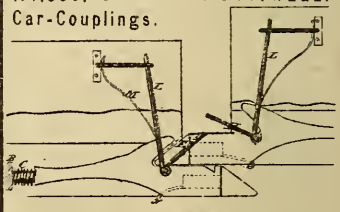




114,351.
T. F. ROONEY.
Dust-Pans.

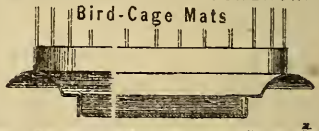
114,352, SMOKING-TOBACCO.
ALBERT S. ROSENBAUM.

114,353. SAMUEL S. SARTWELL.
Car-Couplings.

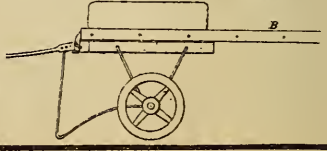


114,354, HENRY A. SAWYER AND RANSOM G. SAWYER,
LEATHER-POLISH.

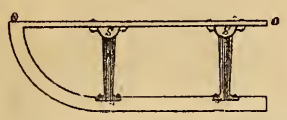
114,355. CHARLES S. SCHENCK.
Bird-Cage Mats



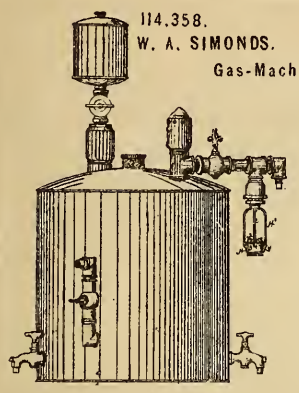
114,356. EDWARD G. SCOVIL.
Charging Iron-Furnaces.



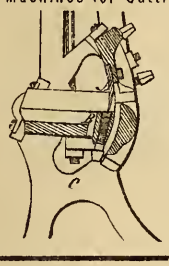
114,357 C. SHAW.
Sled-Knees.



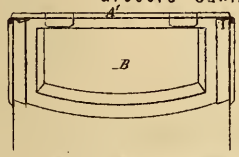
114,358.
W. A. SIMONDS.
Gas-Machines.



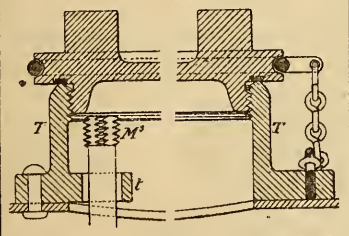
114,359. WILLIAM SISSON.
Machines for Cutting Staves.



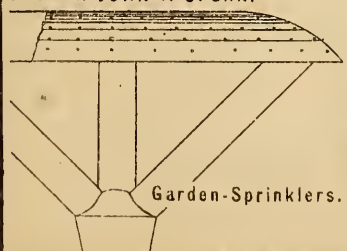
114,360. W. H. SMITH.
Grocers' Canisters.



114,361. SNYDER & SNYDER.
in Oil-Tanks.



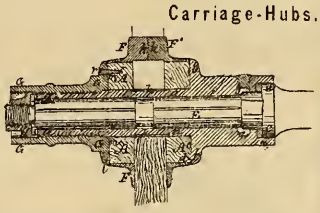
114,362. JOHN I. SPEAR.



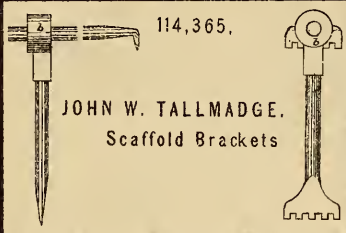
Garden-Sprinklers.

CHARLES B. SREEVES.
114,363. Bridges.

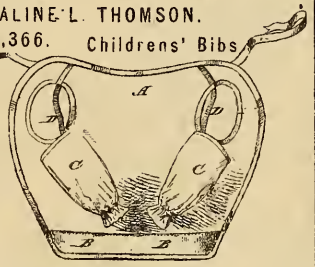
114,364. HENRY W. STOW.
Carriage-Hubs.



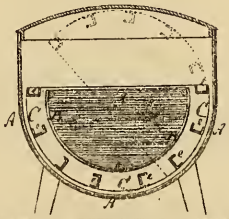
114,365.
JOHN W. TALLMADGE.
Scaffold Brackets



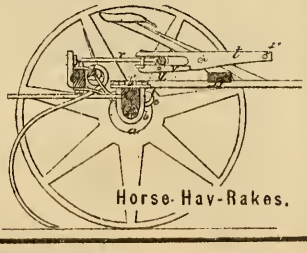
ADALINE L. THOMSON.
114,366. Childrens' Bibs.



114,367. HENRY B. TODD.
Dish-Washers.

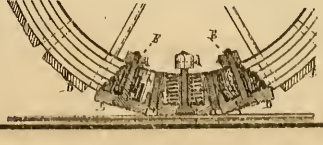


114,368. R. M. TREAT.

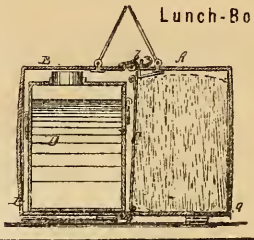


Horse-Hay-Rakes.

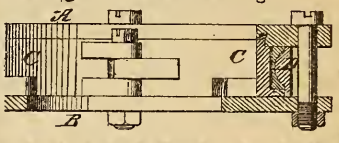
114,369. C. W. TREMAIN.
Wheels for Traction-Engines.



114,370. D. TROXELL.
Lunch-Boxes.



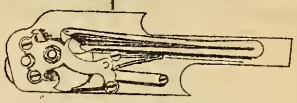
114,371. S. W. TYLER.
Making Cushioned Belting



114,372. A. WADSWORTH.
Pallets of Watches.

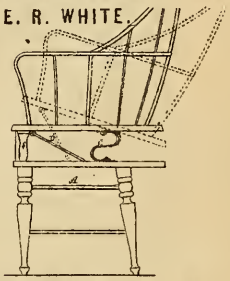
114,373. ENOCH WAITE,
FABRICS FROM WASTE LEATHER.

114,374. DANIEL B. WESSON.
Locks for Double-Barreled Fire-Arms.

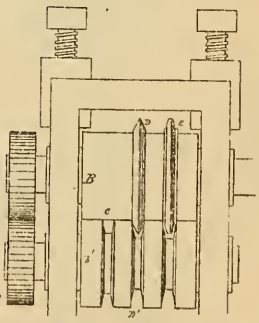


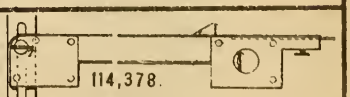
114,375. WALTER WHEELOCK.
MERCURIAL SALVES.

114,376. E. R. WHITE.
Tilting-Chairs.



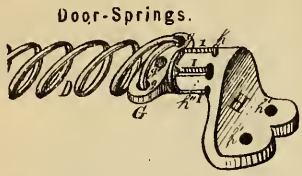
114,377. EDWIN WIGHT,
Rolling Umbrella-Connections.





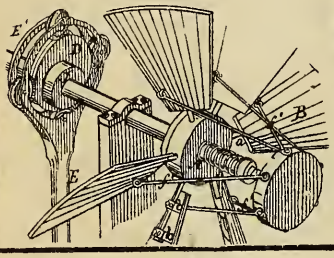
114,378.
M. M. WILSON.
Square, Bevel, Plumb, and Gauge.

114,379 L. R. WITHERELL
Door-Springs.

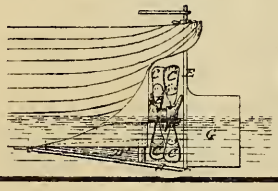


114,380. J. A. WOOD.
Washing-Machines.

114,381. HORACE WOODRUFF.
Wind-Wheels.

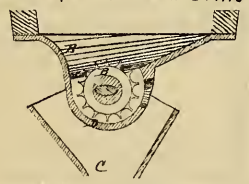


114,382 WYLAND & RATHMELL.
Propellers for Canal-Boats.

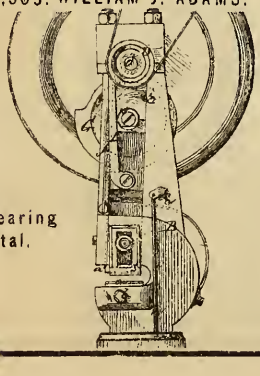


114,383.
WILLIAM E. YEAGER.
Bolt-Cutters.

114,384.
JOHN P. ZELLER.
Cups for Grain-Drills

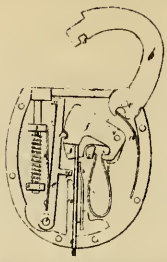


114,385. WILLIAM J. ADAMS.

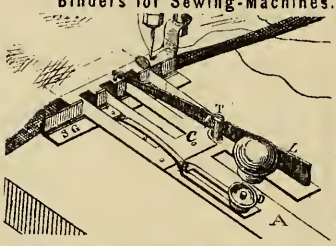


Shearing Metal.

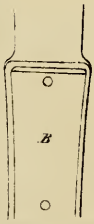
114,386. AKINS & ABELL
Padlocks.



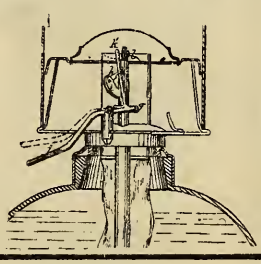
114,387. ALLEBAUGH & CUFFELL
Binders for Sewing-Machines.



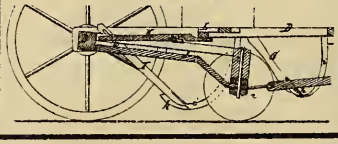
114,388. JOLINE.
ANDROVATT &
Kitchen-Knives.



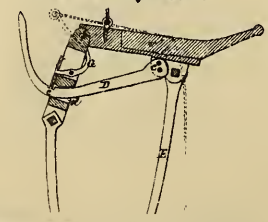
114,389
W. W. BATCHELDER.
Self-Lighting Lamps.



114,390. H. BAUGHMAN.
Corn-Planters.

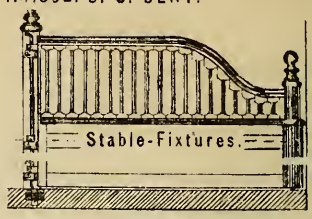


114,391. CHARLES BEAN.
Horse Hay-Forks.



114,393. JOHN T. BEVER AND
PAULINE S. BEVER,
SOAPS.

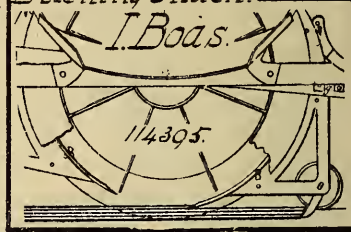
114,392. S. S. BENT.



Stable-Fixtures.

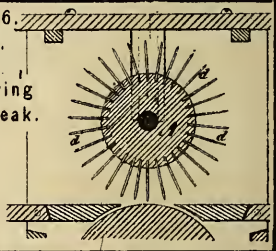
114,394. JAMES R. BIRD
Rubber-Tubes for Grain-Drills,

Ditching Mach.
I. Boas.



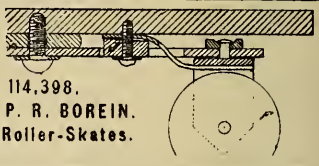
114,395.

114,396.
ASA M.
BOND.
Preparing
Beefsteak.

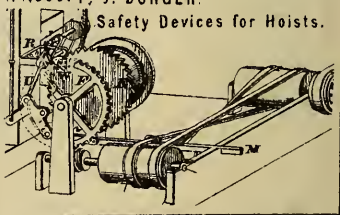


114,397.
HENRY BOOT.
Knitted Fabrics.

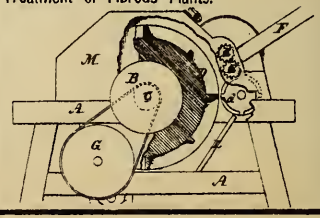
114,398.
P. R. BOREIN.
Roller-Skates.



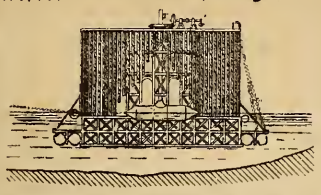
114,399. P. J. BORGER.
Safety Devices for Hoists.



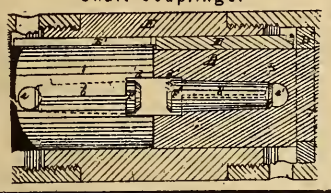
114,400. A. BOUCHARD.
Treatment of Fibrous Plants.



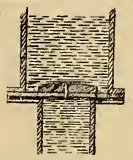
114,401. T. C. BOUTET, Bridges.



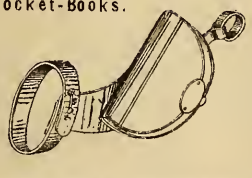
114,402. S. BROADBENT
Shaft-Couplings.



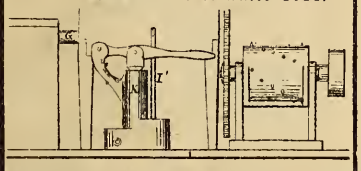
114,403.
A. P. BROWN.
Pumps.



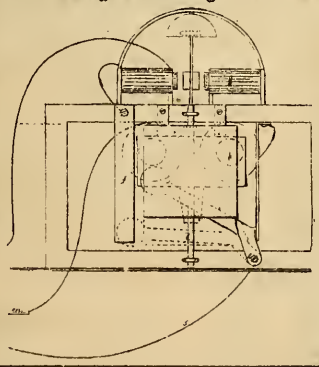
114,404. J. BROWN, Jr.
Safety Pocket-Books.



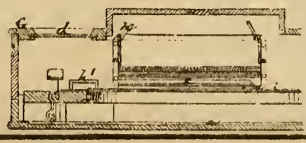
114,405. THOMAS H. BURRIDGE.
Manufacture of White-Lead.



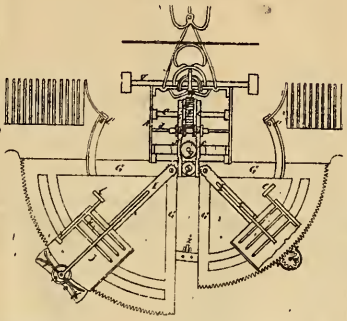
114,406. JOHN G. BUTLER.
Electro-Magnetic Burglar-Alarms.



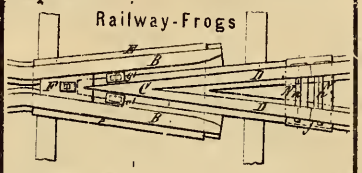
114,407. J. T. CARPENTER.
Corpse-Preservers.



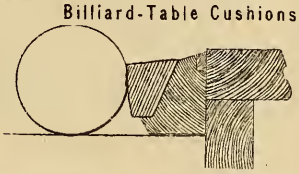
114,408. G. H. Clark,
Mower.



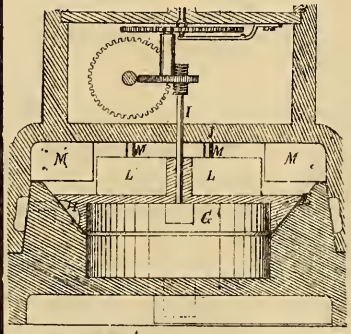
114,409. JOHN W. CLOSE.
Railway-Frogs



114,410. H. W. COLLENDER.
Billiard-Table Cushions.

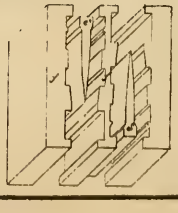


114,411. THOMAS COOK.
Liquid-Meters

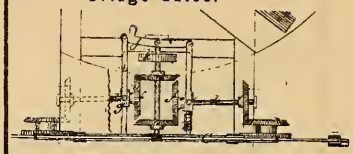


114,412. A. COOPER.
Ventilating Roller Window-Blinds.

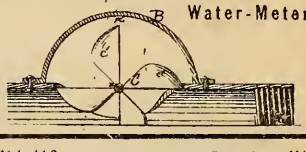
114,413.
H. D. COWLES
& G. STACY.
Horseshoe-Nail
Machines.



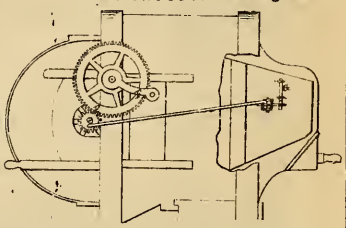
114,414. EDWARD R. COYNE.
Bridge-Gates.



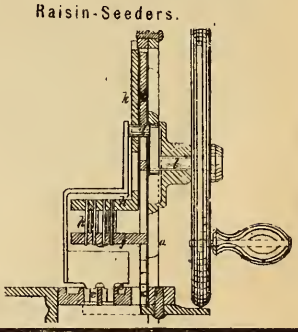
114,415. JOSEPH W. CREMIN.
Water-Meters.



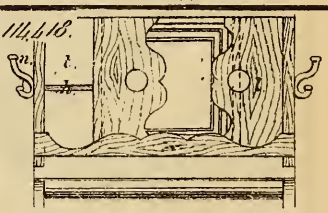
114,416. L. M. CROSBY. Fanning-Mills.



114,417. W. S. CURTISS, Jr.
Raisin-Seeders.

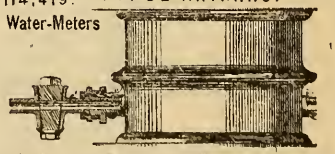


114,418.

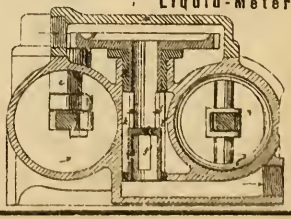


F. L. Dalton
Toilet Case.

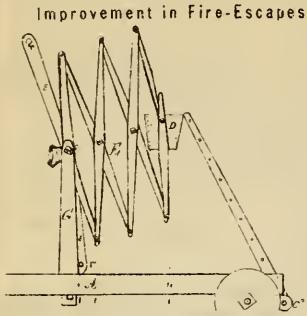
114,419. J. F. DE NAVARRO.
Water-Meters



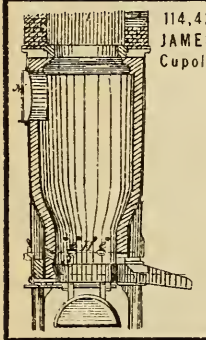
114,420 DE NAVARRO SERGEANT
Liquid-Meters



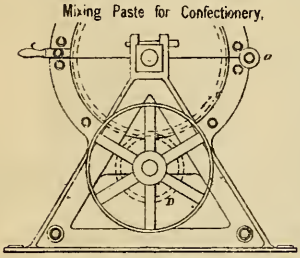
114,421. WILLIAM DE PEW.
Improvement in Fire-Escapes.

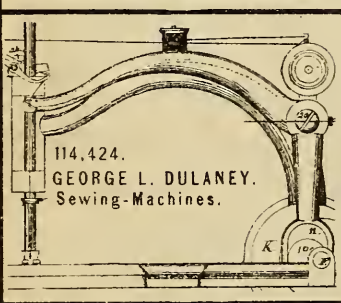


114,422
JAMES DOUGHERTY.
Cupola-Furnaces.



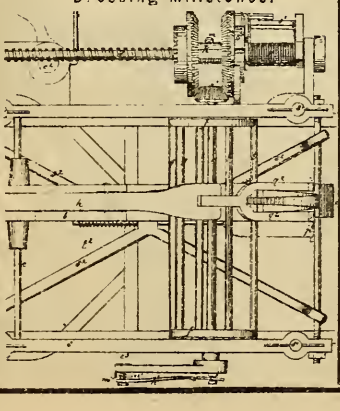
114,423. ROBERT DUFF.
Mixing Paste for Confectionery.



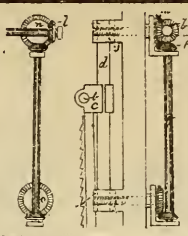


114,424.
GEORGE L. DULANEY.
Sewing-Machines.

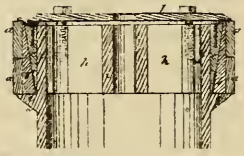
114,425. SAMUEL EAST
Dressing Millstones.



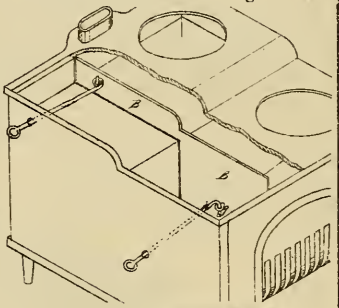
114,426.
M. J. EGERY.
Saw-Mills.



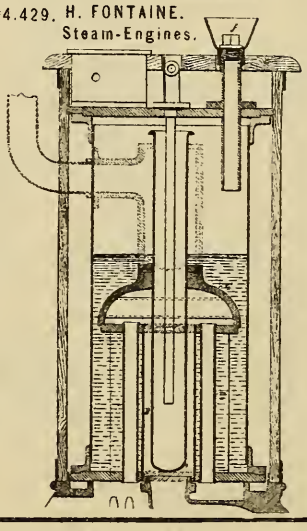
114,427. P. ESTES. Piston-Packing



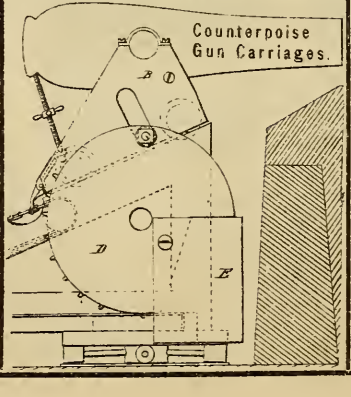
114,428. SELENA C. EWING.
Division-Plates for Cooking-Stoves.



114,429. H. FONTAINE.
Steam-Engines.

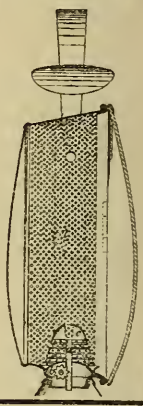


114,430. JOHN G. FOSTER.
Counterpoise Gun Carriages.

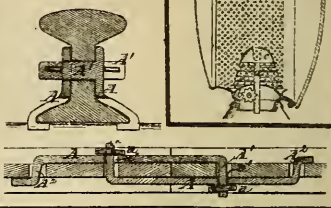


114,431.
JAMES H. GARNER.
Wash-Boilers.

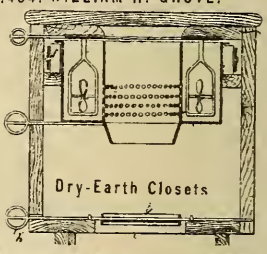
114,432.
N. GEAR.
Lanterns



114,433.
WILLIAM F.
GRASSLER.
Rail-Joints.

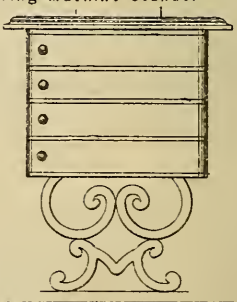


114,434. WILLIAM H. GROVE.



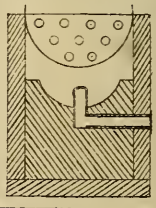
Dry-Earth Closets

114,435 W. H. GROVE.
Sewing-Machine Stands.



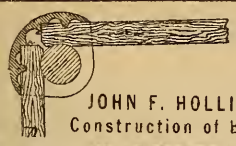
114,436.
J. C. HAM.
Sashes of
Carriage
-Doors

114,437.
CHARLES J. HARRIS
Return-Flue
Boiler-Furnaces.



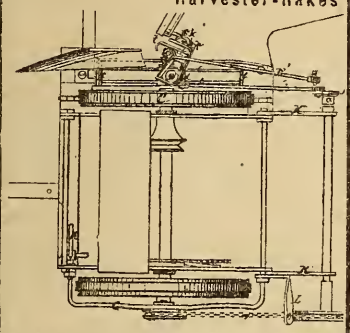
114,438.
C. HAVARD.
MANUFACTURE OF
CANDLES.

114,439. JOHN F. HOLLISTER. Construction of Bedsteads.

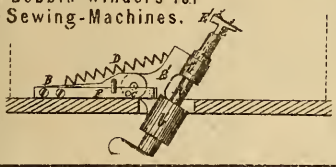


114,440. A. L. IDE. Steam-Heaters.

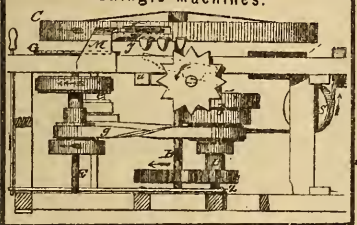
114,441. B. ILLINGWORTH. Harvester-Rakes



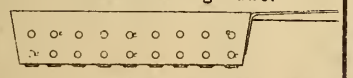
114,442 T. M. JENKS. Bobbin-Winders for Sewing-Machines.



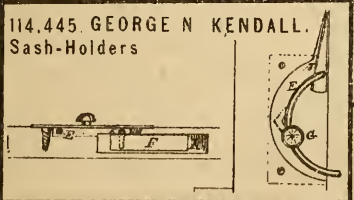
114,443. JOSEPH JIMO. Shingle-Machines.



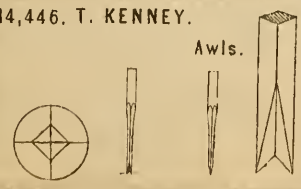
114,444 A. JONES. Potato-Baking Pans.



114,445. GEORGE N KENDALL. Sash-Holders

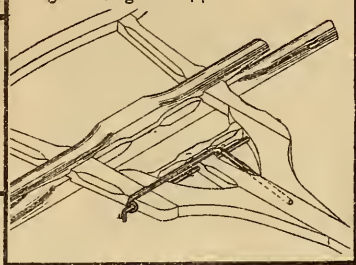


114,446. T. KENNEY. Awls.



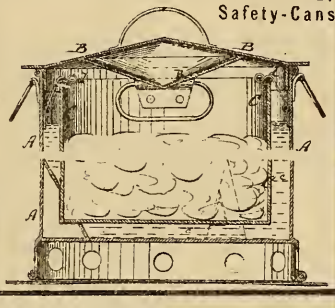
114,447. SILAS P. KNIGHT. ELECTROTYPE-MOLDS.

114,448 JOHN KREHBIEL. Wagon-Tongue Supports.

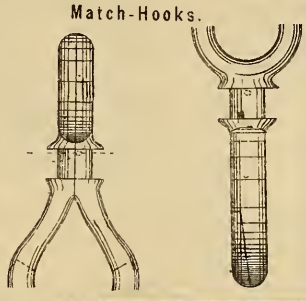


114,449. BALTHASAR KREISCHER. MANUFACTURE OF FIRE-BRICKS.

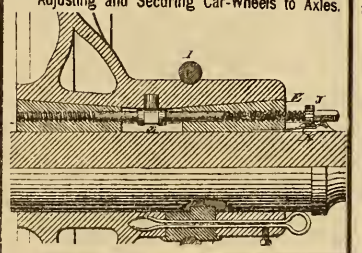
114,450. WILLIAM H. LAWRENCE. Safety-Cans



114,451. JOSEPH D. LEACH. Match-Hooks.

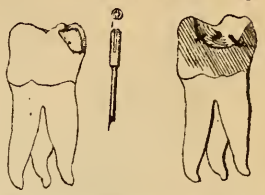


114,452. GEORGE G. LOBDELL. Adjusting and Securing Car-Wheels to Axles.

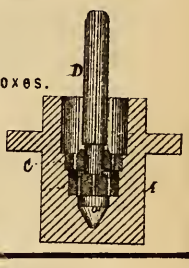


114,453. ERNEST LOHSAND. Stove-Dampers.

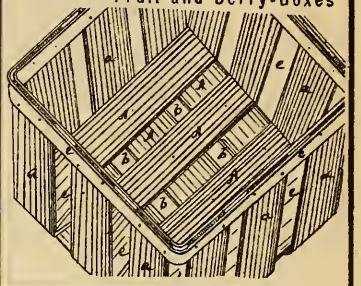
114,454. CHARLES H. MACK. Securing Dental Fillings.



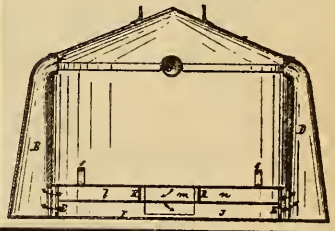
114,455. LEWIS MAISH Spindle-Step Boxes.



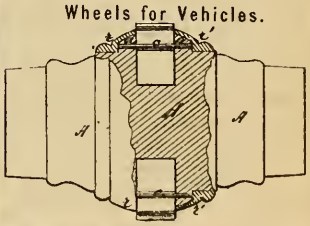
114,456. JOSHUA H. MARVIL. Fruit and Berry-Boxes



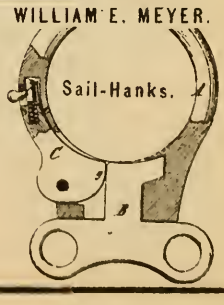
114,457. DAVID McCLEARY. Wash-Boilers.



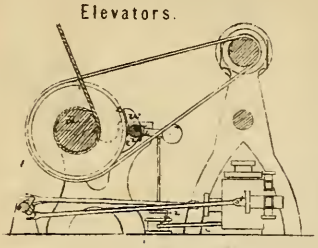
114,458 ROBERT W. McCLELLAND Wheels for Vehicles.



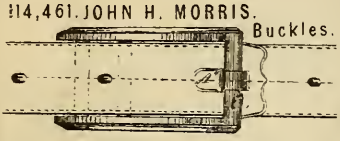
114,459. WILLIAM E. MEYER. Sail-Hanks.



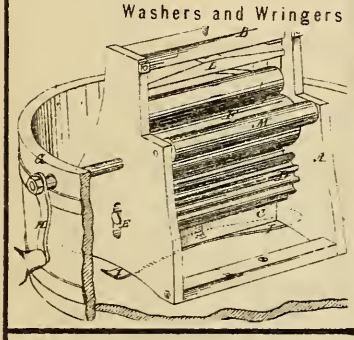
114,460. CHARLES E. MOORE.
Elevators.



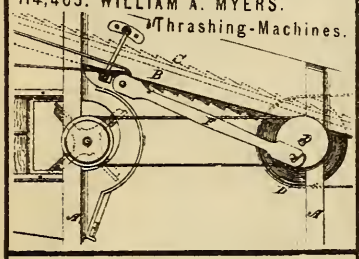
114,461. JOHN H. MORRIS.
Buckles.



114,462. JESSIE H. MURRAY.
Washers and Wringers

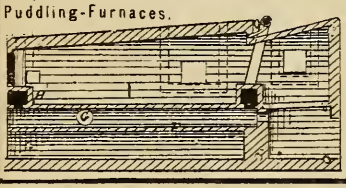


114,463. WILLIAM A. MYERS.
Thrashing-Machines.



114,464. EDWARD HENRY NEILL.
WASHING-FLUIDS.

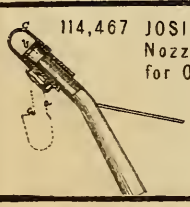
114,465. JOHN NEVILLE
Puddling-Furnaces.



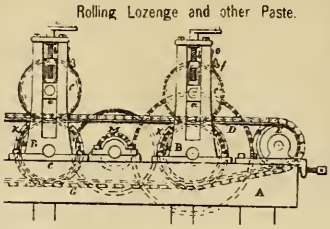
114,466.

ALFRED NORTON.
Sleigh-Heaters.

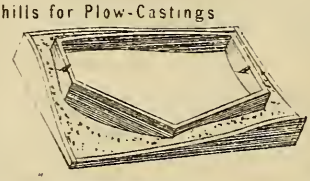
114,467 JOSIAH H. NOYES.
Nozzle-Stoppers
for Oil-Cans.



114,468. CHARLES A OEHL.
Rolling Lozenge and other Paste.

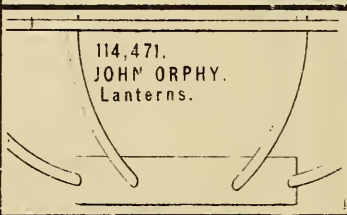


114,469. JAMES OLIVER.
Chills for Plow-Castings

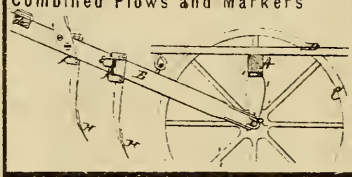


114,470.
C. H. ORCUTT.
Enameling Boot
and Shoe Heels.

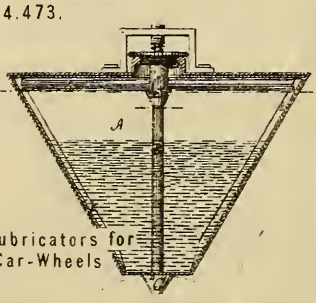
114,471.
JOHN ORPHY.
Lanterns.



114,472. O. M. POND.
Combined Plows and Markers

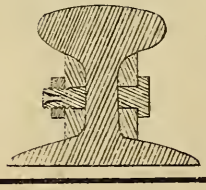


114,473.

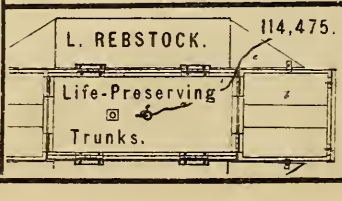


Lubricators for
Car-Wheels

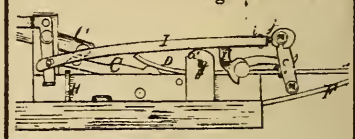
114,474.
PETER F.
RANDOLPH.
Nut-Locks.



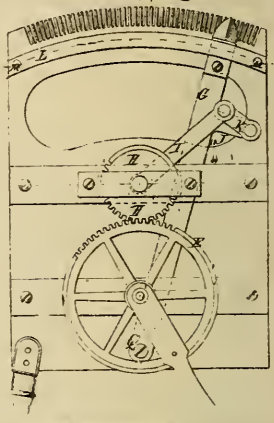
L. REBSTOCK. 114,475.
Life-Preserving
Trunks.



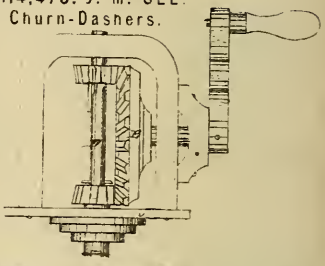
114,476. GEORGE J. RIBLET.
Tire-Bending Machines.



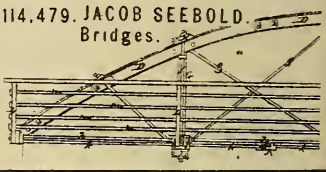
114,477. F. C. RICHARDSON.
Hair-Clipping Devices.



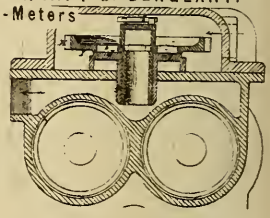
114,478. J. M. SEE.
Churn-Dashers.



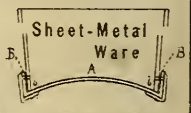
114,479. JACOB SEEBOLD.
Bridges.



114,480. HENRY C. SERGEANT.
Liquid-Meters

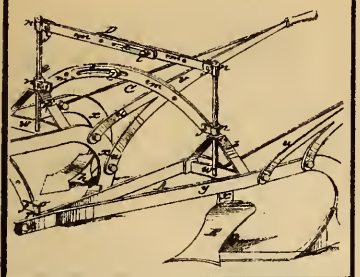


114,481.
HENRY W.
SHEPARD.
Bottoms for

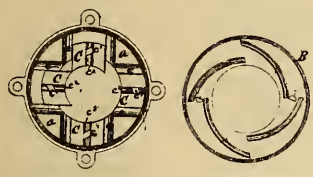


114,482. A. M. SHURTLEFF.
Apparatus for Atomizing Liquids.

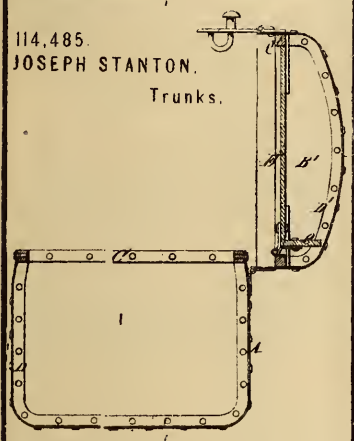
114,483. M. P. SIMPSON.
Cultivators



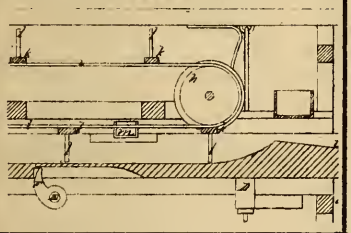
114,484. HENRY G. SMITH.
Stove-Pipe Thimbles.



114,485.
JOSEPH STANTON.
Trunks.

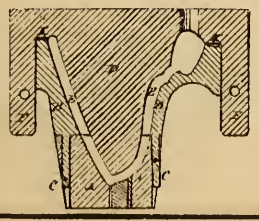


114,486 WILLIAM C. STILES.
Ore-Concentrators.

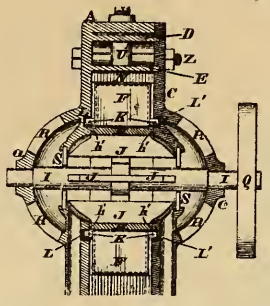


114,487. O. O. STORLE.
Snap-Hooks.

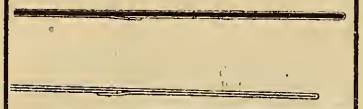
114,488. J. STRAUS.
Molds for Saddle-Trees.



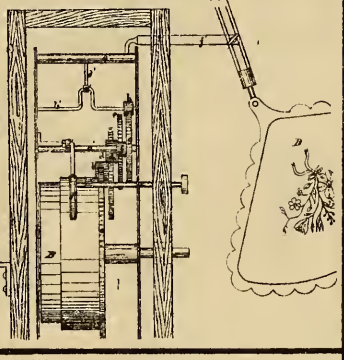
114,489. H. P. TENANT.
Blowers and Rotary Engines.



114,490.
HART, THAYER
Fabrics for Cuffs.

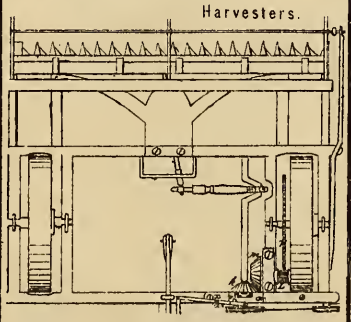


B. D. THOMPSON. 114,491.
Automatic Fans.

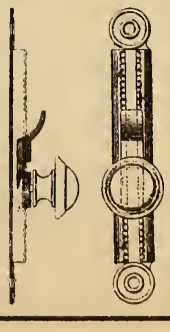


114,492. CHARLES L. TUCKER.
CLARIFYING COFFEE.

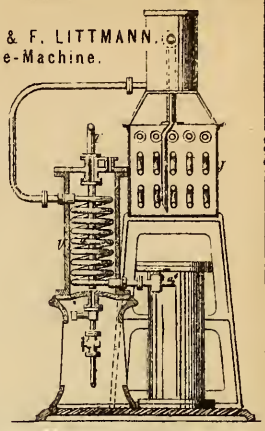
114,493. BENJAMIN G. TURNER.
Harvesters.



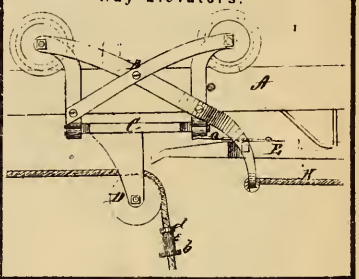
114,494.
ELISHA
TURNER.
Curtain-
Fixtures.



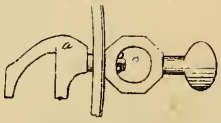
114,495
A. VAAS & F. LITTMANN.
Carre Ice-Machine.



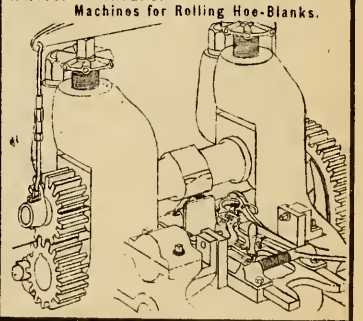
114,496. VAN DEMARK & BARLOW
Hay-Elevators.



114,497. W. W. WADDELL
Draught-Regulators for Stoves.

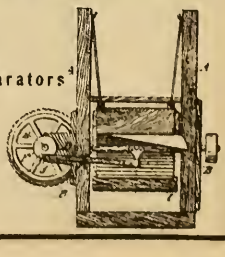


114,498. H. WATERS.
Machines for Rolling Hoe-Blanks.

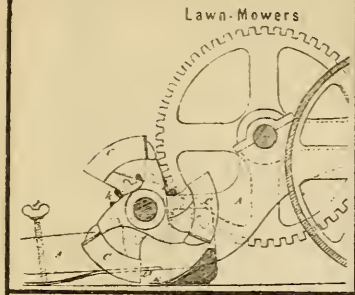


114,499. WEDEKIND & DUEBERG.
Kilns.

114,500.
HENRY L.
WHITMAN.
Grain-Separators

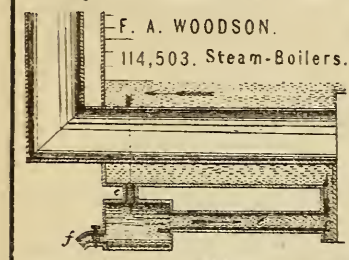


114,501. A. W. C WILLIAMS
Lawn-Mowers

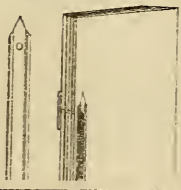


114,502. J. B. WOOD.
MANUFACTURE OF SODA-WATER.

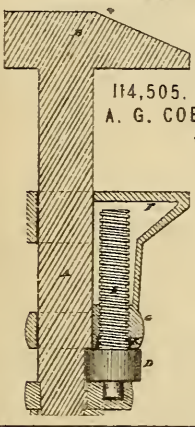
F. A. WOODSON.
114,503. Steam-Boilers.



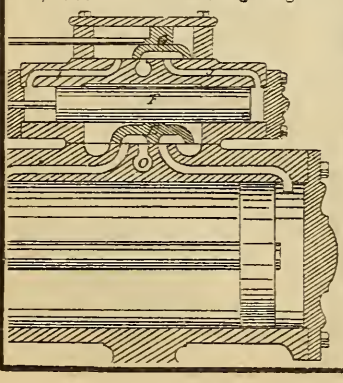
114,504.
S. W YOUNG.
Paper-Files.



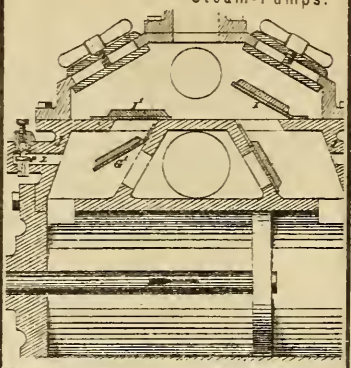
114,505.
A. G. COES.
Wrenches.



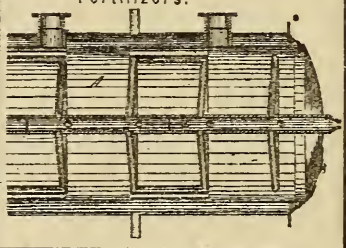
L. J. KNOWLES.
114,506. Steam-Pumping Engines.



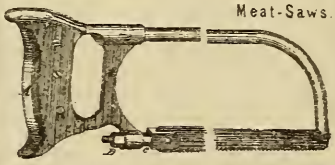
114,507. L. J. KNOWLES.
Steam-Pumps.



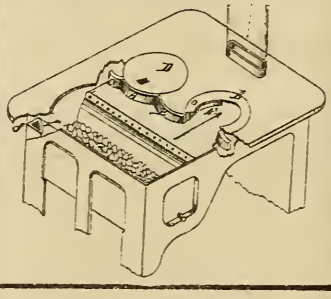
114,508. H. A HOGEL.
Fertilizers.



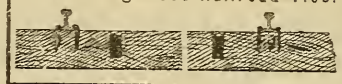
114,509. P. J. HOGAN & A. SOWDEN.
Meat-Saws.



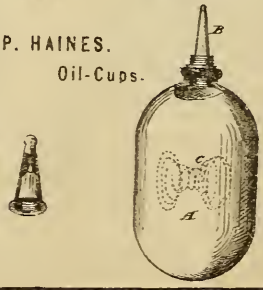
4,359. WILLIAM DOYLE.
Combined Stove-Lids and Damper



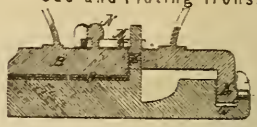
4,360. B. S FOREMAN.
Preserving Wood Railroad-Ties.



4,361.
JOHN P. HAINES.
Oil-Cups.

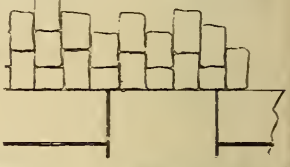


4,362. F. MYERS.
Sad and Fluting Irons.



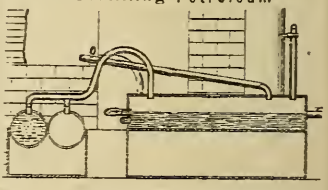
4,363. ALFRED PARAF.
COLORS UPON CLOTH BY PRINTING.

4,364 JOHN J. SCHILLINGER.
Concrete-Pavements.

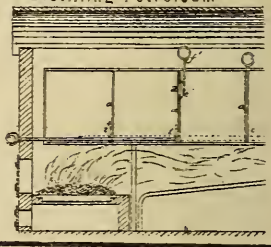


4,365.
E. A. STRATTON &
C. M. STRATTON.
Metal Corner-Pieces

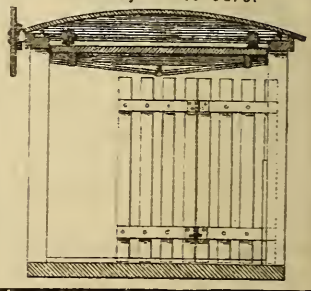
4,366. A. H. TAIT & J. W. AVIS.
Distilling Petroleum



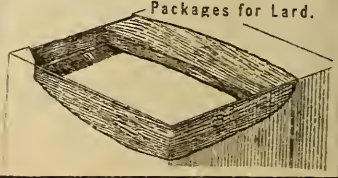
4,367. A. H. TAIT & J. W. AVIS.
Distilling Petroleum



4,368. JOHN B. SHAFER.
Railway Cattle-Cars.



4,369. CHARLES L. TUCKER.
Packages for Lard.



ILLUSTRATIONS OF PATENTS

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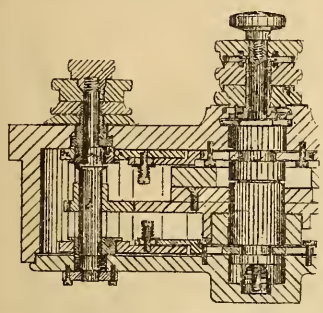
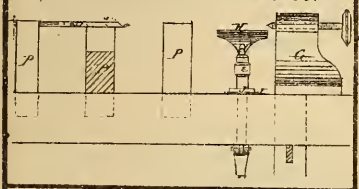
MAY 9, 1871.

114,510 JAMES T. ADAMS.
Permutation-Locks.

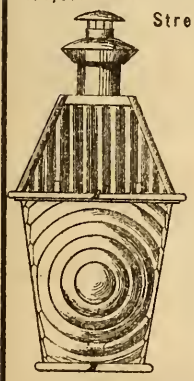


114,511 WILLIAM D. ALFORD.
Pipe-Couplings.

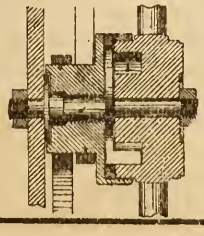
114,512 JOHN P. ALLEN. Lathes.



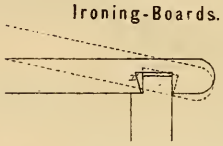
114,513. JOSEPH N. ARONSON.
Street-Lamps



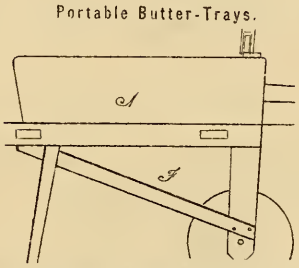
J. BARNES & W. F. BARNES.
114,514 Mechanical Movements.



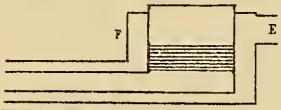
114,515. A. G. BEEK.
Ironing-Boards.



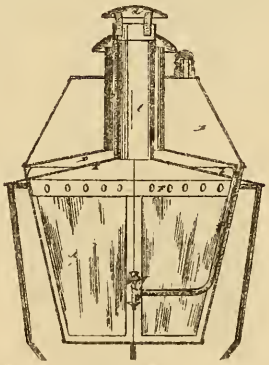
114,516. L. BEEMER.
Portable Butter-Trays.



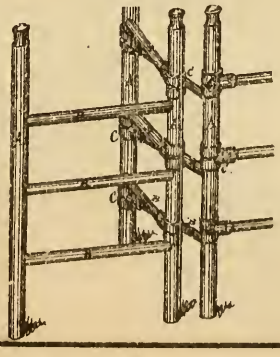
JOHN BELL. 114,517.
Manufacture of Acetate of Lime



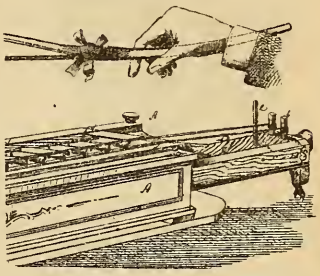
114,518. JOHN BENSON.
Street-Lamps.



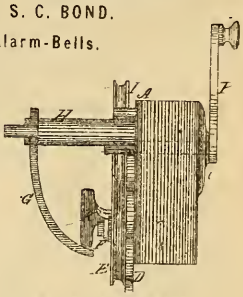
114,519. H. S. BLACK.
Clothes-Driers.



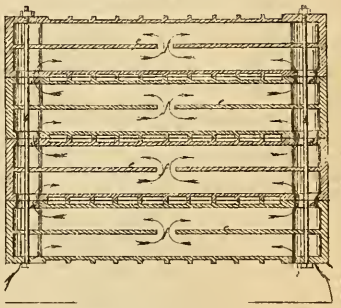
114,520 E. D. BLAKEMAN.
Piano-Violins.



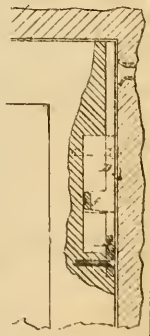
S. C. BOND.
114,521. Alarm-Bells.



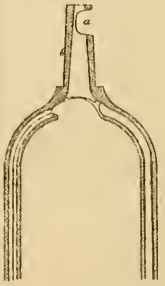
114,522. E. M. BOSLEY.
Steam-Radiators.



114,523 FREEMAN BRADY, Jr.
Attachmehts for Sash-Weights.

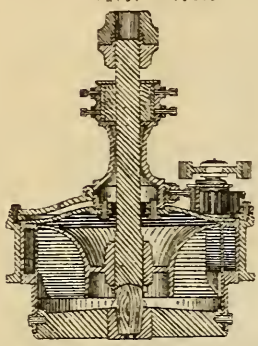


114,524.

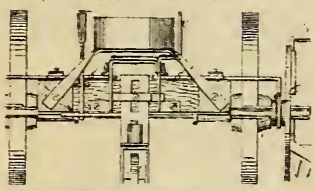


JAMES S. BROWN.
Fliers for Spinning.

114,525 N. F. BURNHAM.
Water-Wheels.

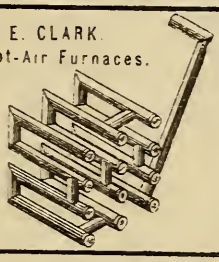


H. BUTTENBERG & J. L. STRONG.
114,526 Stalk-Pullers.

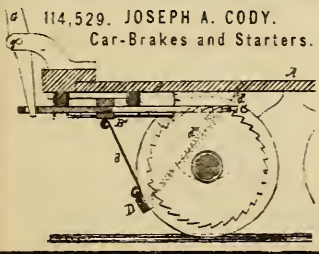


114,527 CHUBB & MARSTON
Clothes-Driers.

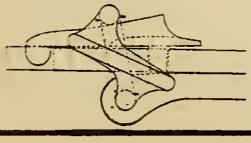
114,528. E. CLARK.
Hot-Air Furnaces.



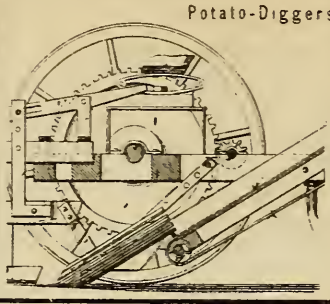
114,529. JOSEPH A. CODY.
Car-Brakes and Starters.



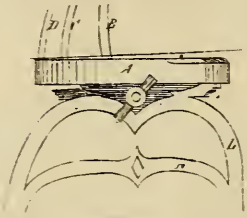
114,530 A. H. COLE
Trace-Buckles.



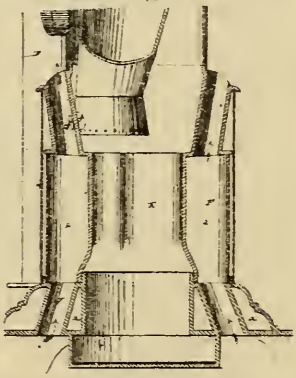
114,531 CLARK COONEY.
Potato-Diggers



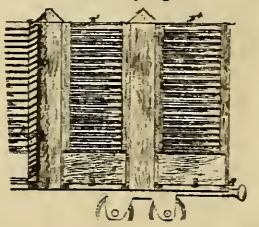
114,532. SAMUEL W. COZZENS.
Sewing-Machine Chairs



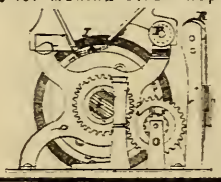
114,533. ROBERT DIVEN.
Base-Burning Stoves



114,534. CHARLES S. DOLE.
Grain-Drying Cars.

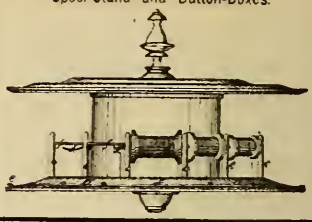


114,535 CHARLES E. DONNELLAN.
Machines for Making Straw-Rope.

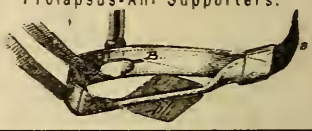


GEORGE DRAPER.
Spindle-Steps.
114,536.

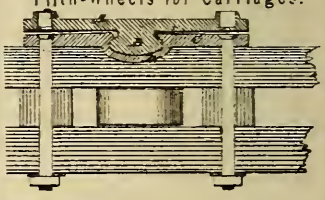
114,537. JOHN H. DRUM.
Spool-Stand and Button-Boxes.



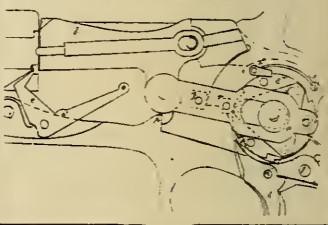
114,538 A. M. DYE.
Prolapsus-Ani Supporters.



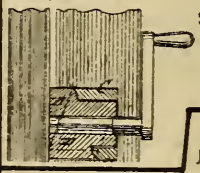
114,539. P. S. EASTMAN.
Fifth-Wheels for Carriages.



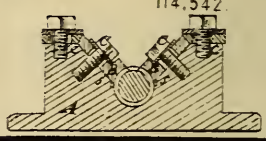
WILLIAM H. ELLIOT.
114,540. Breech-Loading Fire-Arms.



114,541. W. R. ELLIOTT.
Sash-Holders.



S. C. ELLIS
Journal-Boxes.
114,542.

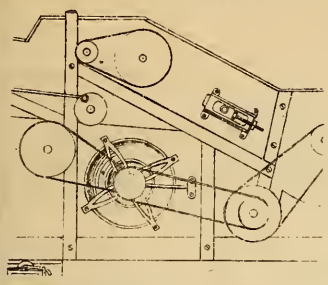


114,543. E. ELY.
Fences

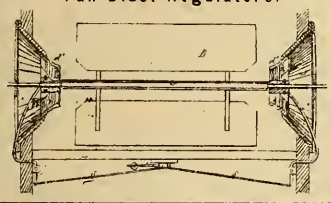
114,544.
JOHN FAY.
MEDICAL COMPOUNDS.

114,545.
WILLIAM FRANKEL.
Ratchet-Drills.

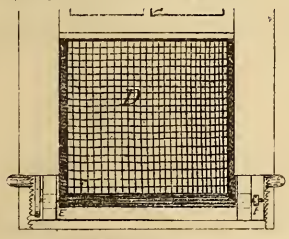
114,546. DANIEL GARVER.
Grain-Separators.



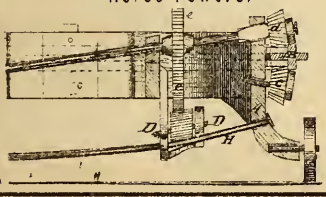
114,547. DANIEL GARVER.
Fan-Blast Regulators.



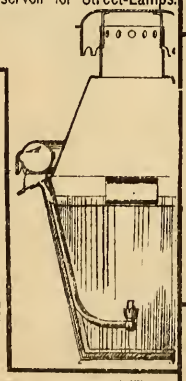
BENJAMIN GIROUX
114,548. Window-Screens

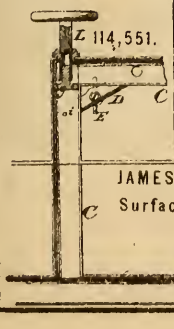


114,549. HOMER GLASS.
Horse-Powers.



L. A. GOUCH.
Detachable Fluid-Reservoir for Street-Lamps.
114,550



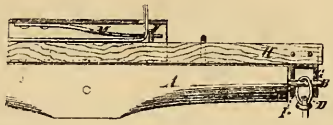


114,551.

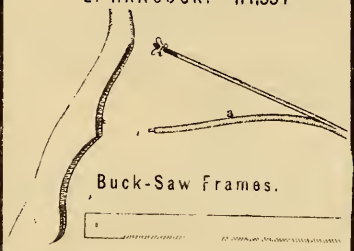
JAMES S. GRIFFITH.
Surface-Blow-Offs

114,552.
SAMUEL GROSS.
FLAVORING WHISKY.

114,553 JOHN L. HAMILTON.
Horse-Detaching Apparatus.

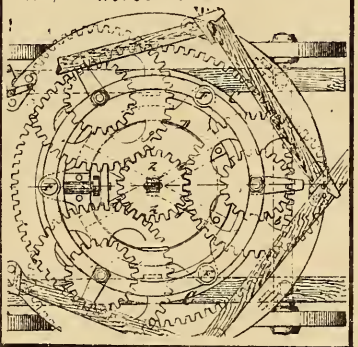


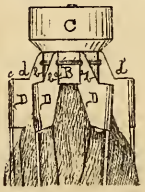
L. HANCOCK. 114,554



Buck-Saw Frames.

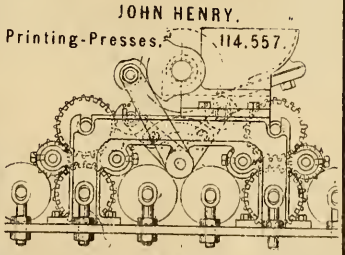
HARRISON & BUCHANAN
114,555 Horss-Powers.



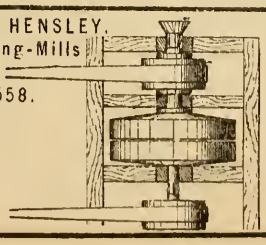


R. F. S. HEATH.
Mosquito-Bars.
114,556.

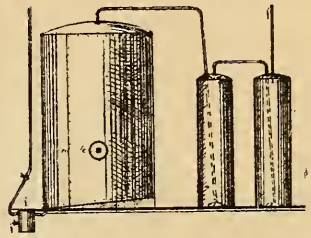
JOHN HENRY.
Printing-Presses. 114,557.



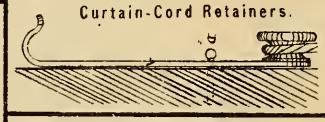
HENRY HENSLEY.
Grinding-Mills
114,558.



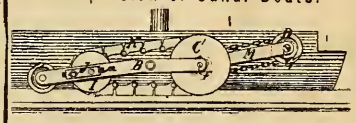
114,559. SAMUEL HEVNER.
Manufacture of Illuminating Gas



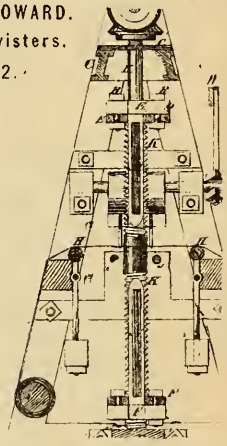
114,560. HENRY HOLCROFT.
Curtain-Cord Retainers.



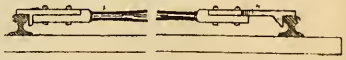
114,561. JULIUS L. HORNIG.
Propulsion of Canal-Boats.



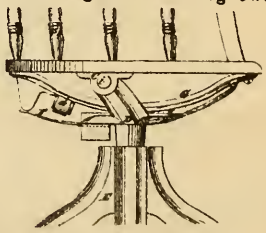
HILAND HOWARD.
Fringe-Twisters.
114,562.



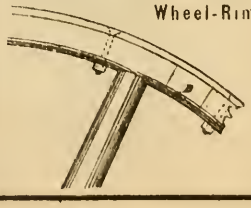
WILLIAM S. HUNTINGTON.
114,563. Railway-Track Gauges



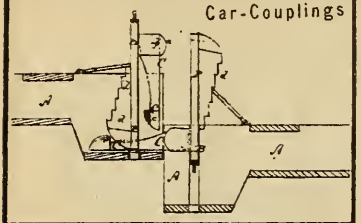
P. C. INGERSOLL. 114,564.
Revolving and Rocking Chairs



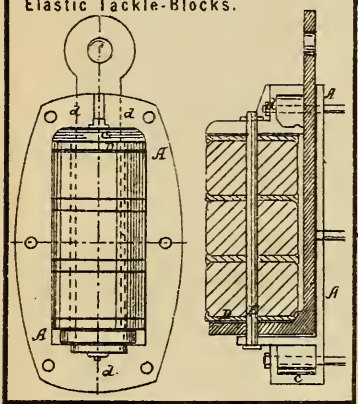
DANIEL A. JOHNSON.
Wheel-Rims
114,565.



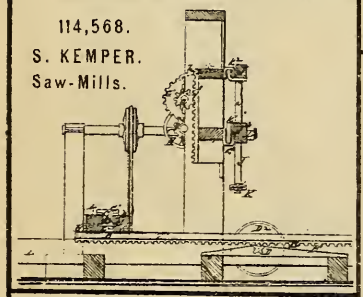
114,566. WILLIAM JOHNSTON. Car-Couplings



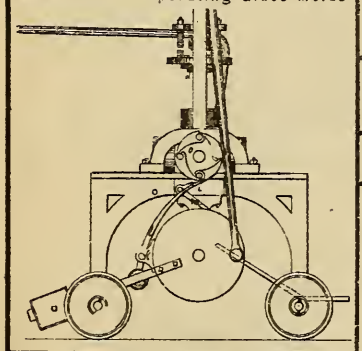
114,567. JOHN E. JONES. Elastic Tackle-Blocks.



114,568. S. KEMPER. Saw-Mills.

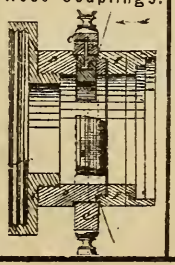


114,569. WILLIAM C. KING. Machines for Operating Glass-Molds

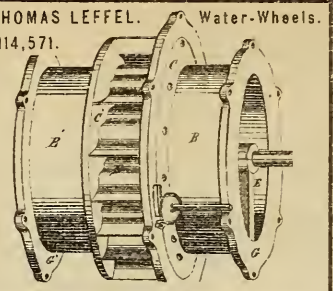


114,570. G. W. KNIGHT & G. DRAPER Spindle-Step

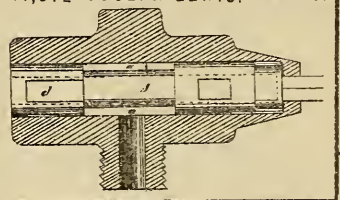
114,575. J. J. LOVELL. Hose-Couplings.

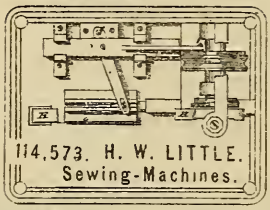


THOMAS LEFFEL. Water-Wheels. 114,571.



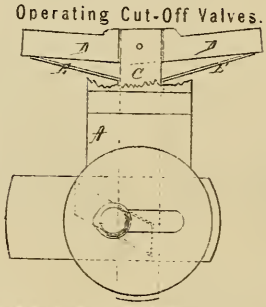
114,572 JOSEPH LEWIS. Valves.





114,573. H. W. LITTLE. Sewing-Machines.

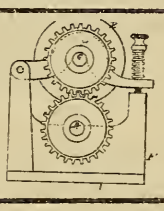
114,574. K. H. LOOMIS. Operating Cut-Off Valves.



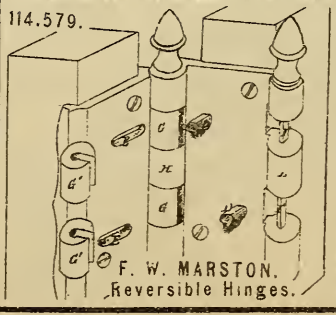
114,576. WILLIAM NEWTON MacCARTNEY. REDUCING RUBBER.

114,577. THOMAS MADELEY. ARTIFICIAL STONE.

114,578. E. J. MARCH. Knife and Fork Scourers.

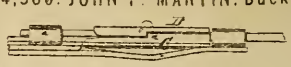


114,579.

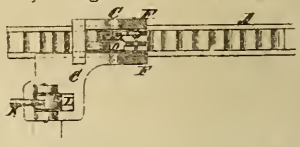


F. W. MARSTON. Reversible Hinges.

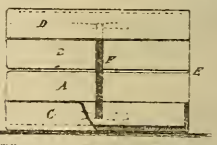
114,580. JOHN F. MARTIN. Buckles



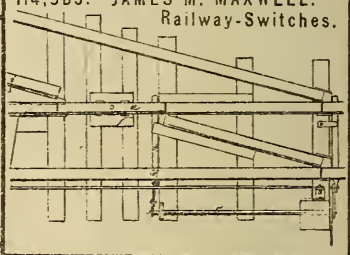
114,581. M. MARTIN. Adjusting Cotton-Bale Ties.



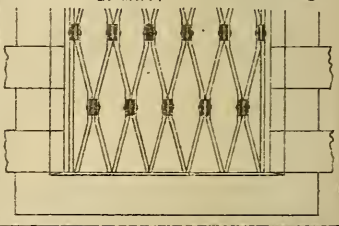
HENRY MATIER. Paper-Boxes. 114,582



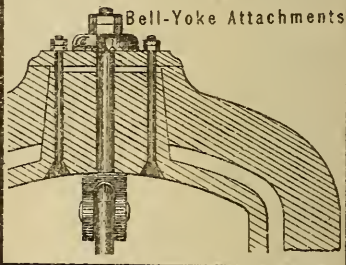
114,583. JAMES M. MAXWELL. Railway-Switches.



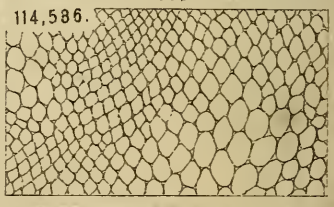
114,584. E. MAY. Prison Gratings.



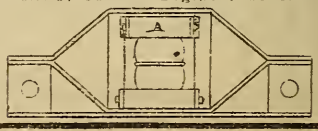
114,585 C. H. MENEELY. Bell-Yoke Attachments



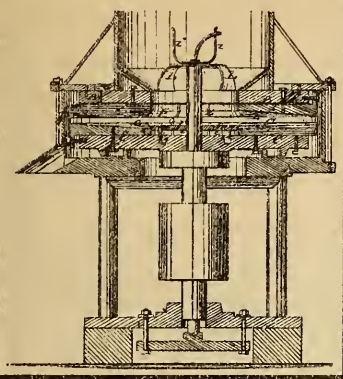
F. S. MERRITT Japanned Leather. 114,586.



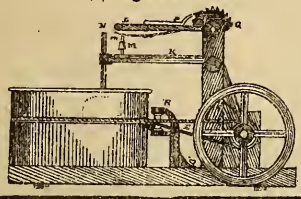
114,587. GEORGE F. MORSE. Railway-Car and Engine Trucks.



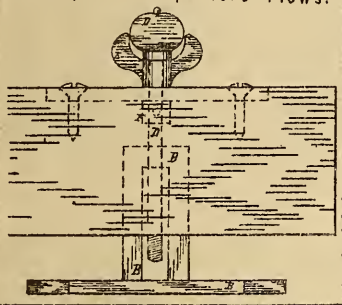
114,588. M. MORSE & C. H. MORSE
Flock-Cutting Machines.



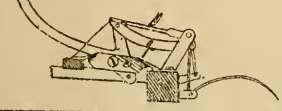
114,589. E NEWCOMER.
Chopping-Machines



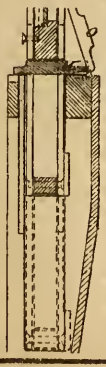
114,590. THOMAS NICHOLS.
Stops for Carpenters' Plows.



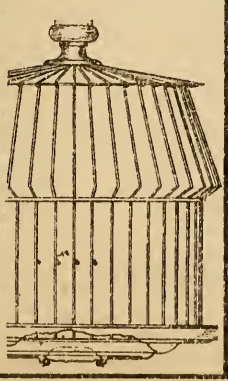
114,591. GEORGE NOTMAN.
Horse Hay-Rakes.



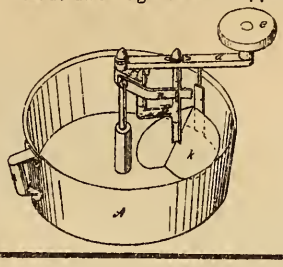
114,592. CHARLES OBLENIS
Carriage-Windows.



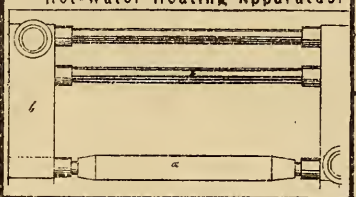
114,593.
Construction of Bird-Cages.
G. R. OSBORN & B. A. DRAYTON.



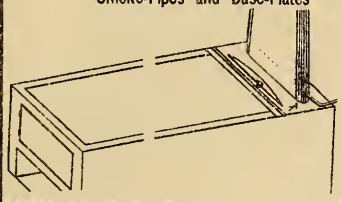
114,594. WILLIAM H. PIERCE.
Meat and Vegetable-Choppers.



114,595. A. C. PENTLAND.
Hot-Water Heating Apparatus.



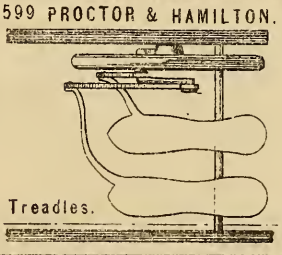
114,597 CHARLES C. POST.
Smoke-Pipes and Base-Plates



114,596 GEORGE PILE.
TANNING

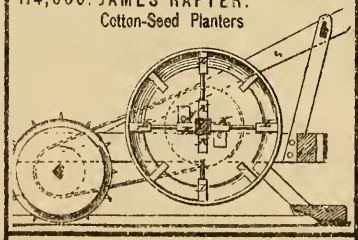
114,598. JOHN G. POWELL.
Button-Hole Cutters.

114,599 PROCTOR & HAMILTON.

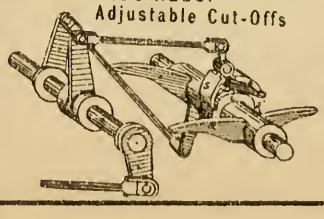


Treadles.

114,600. JAMES RAFTER.
Cotton-Seed Planters

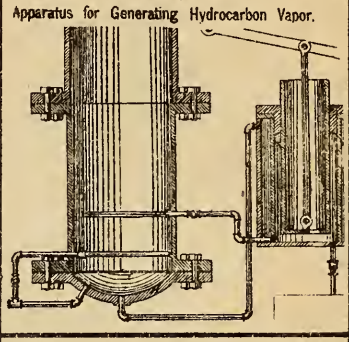


114,601. JAMES REES.
Adjustable Cut-Offs

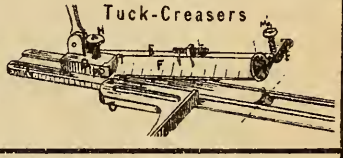


114,602. NATHANIEL B. RICE.
OBTAINING GELATINE FROM BONES, HORN-PITH,

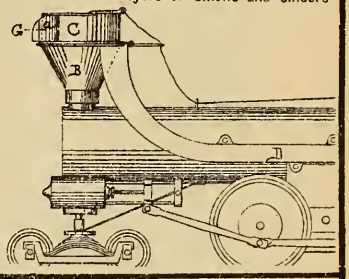
114,603. W. R. ROBERTS.
Apparatus for Generating Hydrocarbon Vapor.



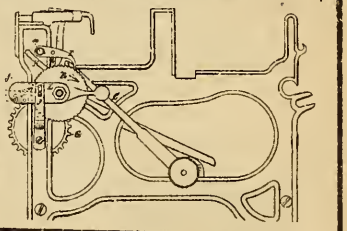
114,604 CHARLES E. ROBINSON.
Tuck-Creasers



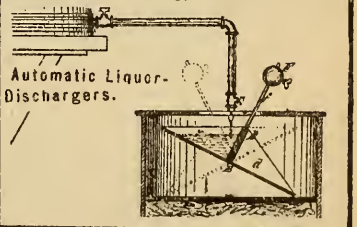
114,605. AUGUSTA M. RODGERS.
Conveyers of Smoke and Cinders



114,606. W. ROUSE. Loom Take-Up.

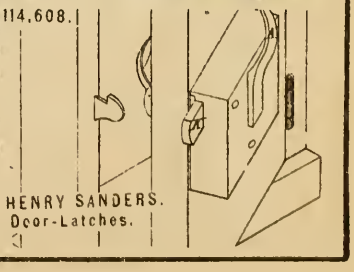


114,607 A. C. ROWE.



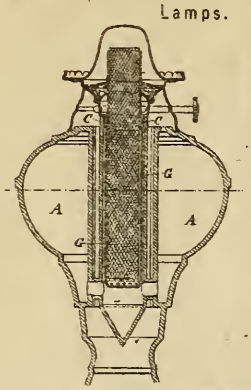
Automatic Liquor-Dischargers.

114,608.

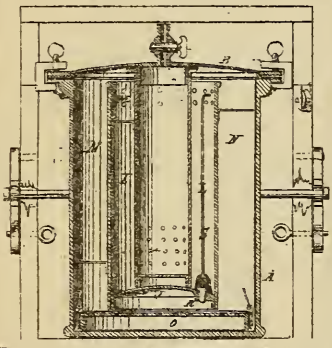


HENRY SANDERS.
Door-Latches.

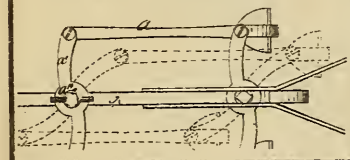
114,609. WILLIAM SCARLETT.
Lamps.



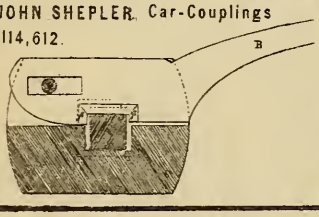
114,610 JOHN C. SCHNELL.
Rectifiers and Filters.



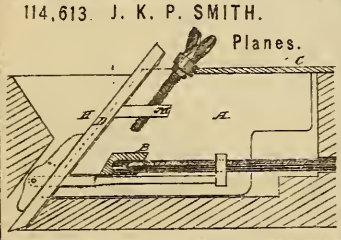
114,611. M. R. SHALTERS. Plows.



JOHN SHEPLER. Car-Couplings
114,612.

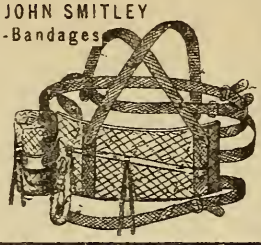


114,613. J. K. P. SMITH.
Planes.

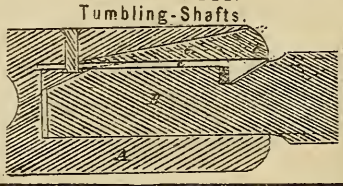


114,614. SAMUEL SMITH.
Heating-Stove

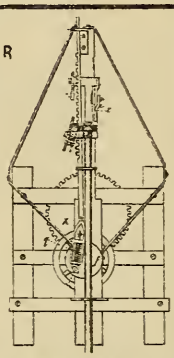
114,615. JOHN SMITLEY
Surgical-Bandages.



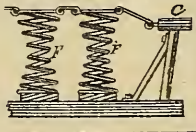
114,616. DANIEL SNELL.
Tumbling-Shafts.



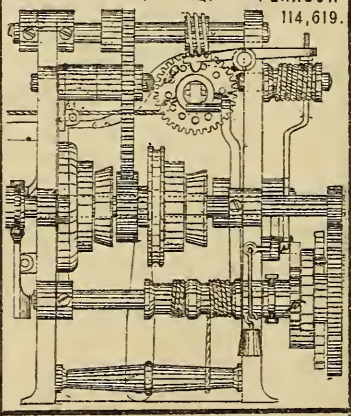
114,617.
J. W. SPANGLER
& W. L. BOYD.
Rock-Drilling
Machines.



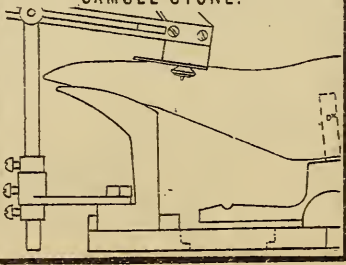
114,618.
GEORGE
SPECKNER.
Spring Bed
-Bottoms.



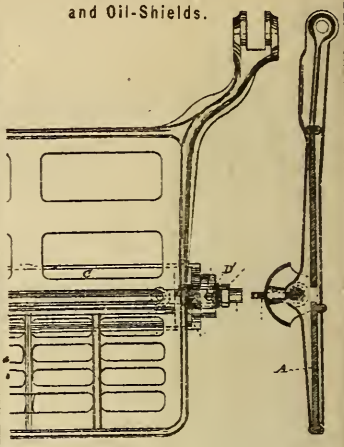
I. STEAD, H. HOLCROFT & F. R. PEARSON
Mules for Spinning.
114,619.



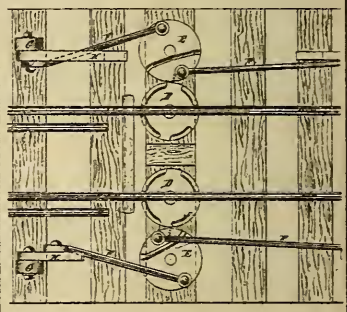
114,620. Shank Marking-Tools.
SAMUEL STONE.

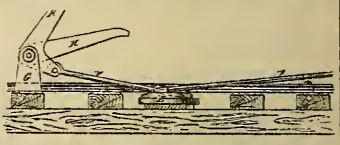


114,621. N. D. STOOPS.
Treadle-Bearings
and Oil-Shields.

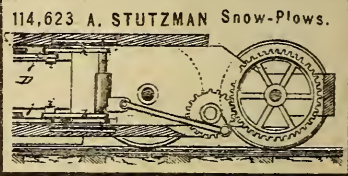


114,622. H. STRAIT.
Railway-Switches.



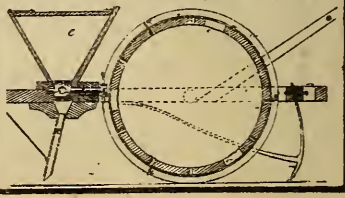


114,623 A. STUTZMAN Snow-Plows.

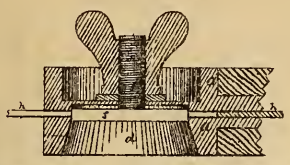


114,624.
A. W. THOMAS.
Tournures.

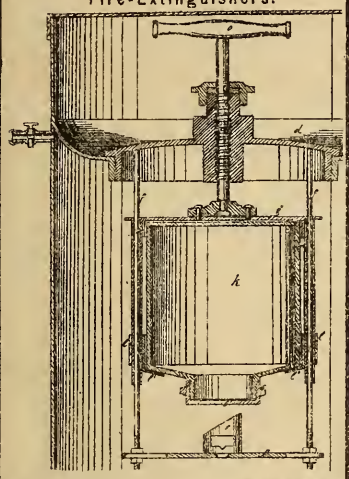
114,625. WILLIAM B. TOWNES.
Combined Corn and Cotton Planters.



114,626. J. A. TRAUT.
Adjustable Bevels.

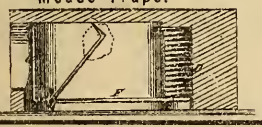


114,627. J. B. VAN DYNE
Fire-Extinguishers.

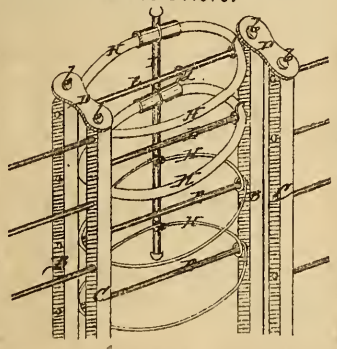


114,628.
P. H. WATSON.
Car-Wheels.

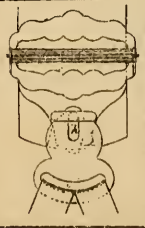
114,629 HENRY S. WELLER.
Mouse-Traps.



114,630. L. M. WHITMAN.
Clothes-Driers.

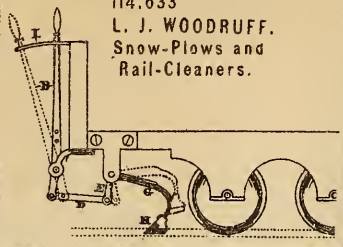


114,631.
H. S. WILKIN.
Buckles.

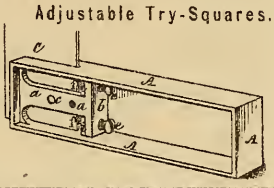


114,632.
W. WILSON.
WALL-PAPERS.

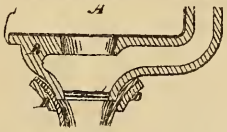
114,633
L. J. WOODRUFF.
Snow-Plows and Rail-Cleaners.



114,634. L. BAILEY.
Adjustable Try-Squares.



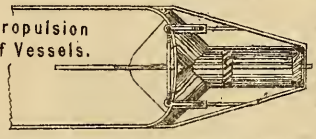
114,635. A. BARROWS.
Pipe Attachments in Plumbing.



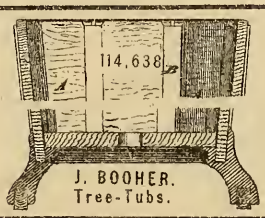
114,636. HENRY B. BEACH.

Tea-Trays.

114,637. GEORGE A. BEIDLER.
Propulsion of Vessels.

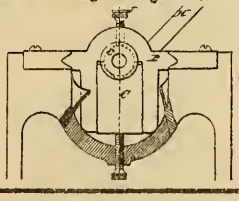


114,638.

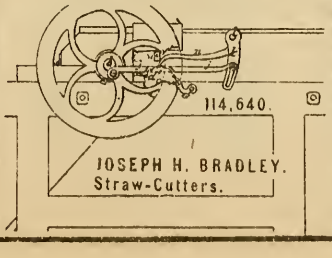


J. BOOHER.
Tree-Tubs.

114,639 T. V. BOYDON.
Machines for Heading Cartridge-Shells.

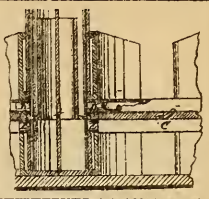


114,640.

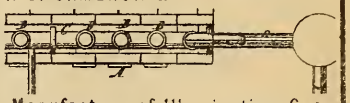


JOSEPH H. BRADLEY.
Straw-Cutters.

114,641.
S. BUNN.
Puddling-Furnaces.

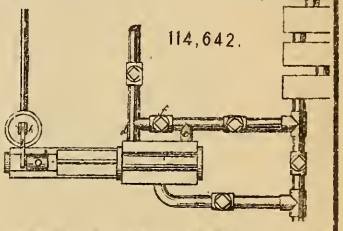


A. S. CAMERON & W. E. EVERETT.

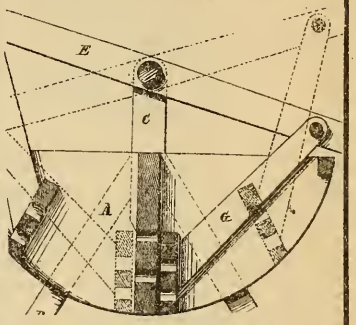


Manufacture of Illuminating Gas.

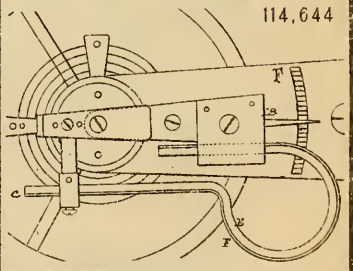
114,642.



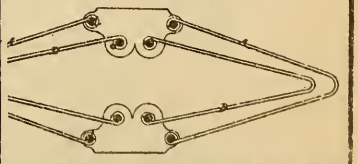
EDWARD R. CHAMBERLIN.
114,643. Washing-Machines.



J. P. CLARK. Watch-Regulators.
114,644

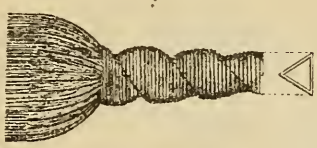


114,645. EDWARD CLIFF.
Springs for Railway-Cars.

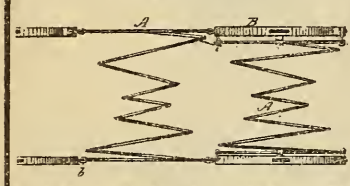


114,646.
E. P. COOLEY.
Whisk-Brooms.

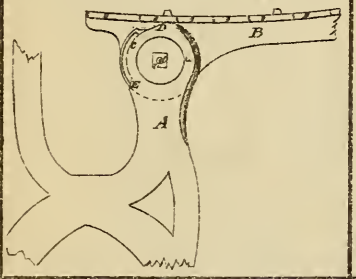
114,647. G. A. COOPER & C. SOUTHWORTH.
Tassel-Heads.



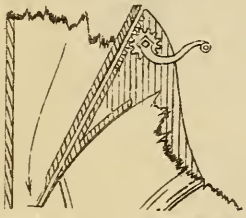
114,648. R. T. CORNELL.
Spring-Mattresses.



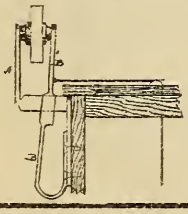
114,649. C. U. CRANDALL.
School-Desk Joints.



114,650. DAVIS & BUNNELL.
Water-Wheel Gates.

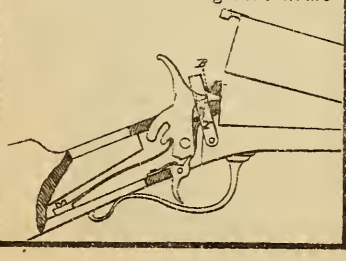


114,651. D. DICK.
Clamps for Holding Packages.

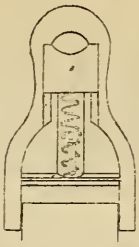


114,652. EARDLEY LOUIS CHARLES D'IVERNOIS.
PRODUCING THE ELECTRIC LIGHT.

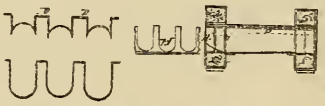
114,653. WILLIAM C. DODGE.
Breech-Loading Fire-Arms



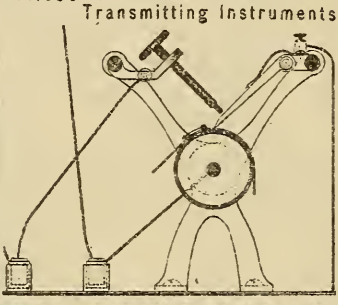
114,654.
A. B. DOWELL.
Trace-Fasteners



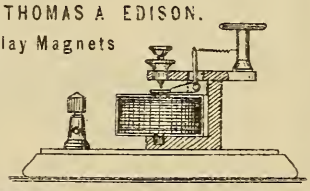
114,655.
N. DUBRUL.
Cigar-Molds.



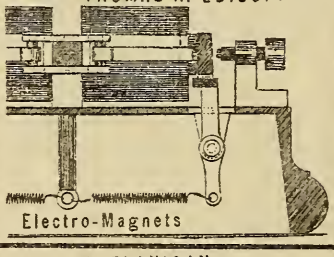
114,656 THOMAS A. EDISON.
Transmitting Instruments.



114,657
THOMAS A. EDISON.
Relay Magnets

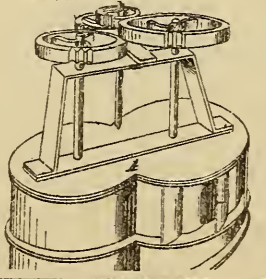


114,658. THOMAS A. EDISON.



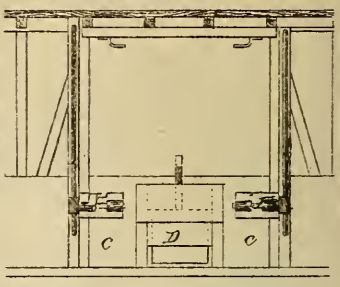
Electro-Magnets

114,659 M. FLANIGAN.
Water-Wheels.

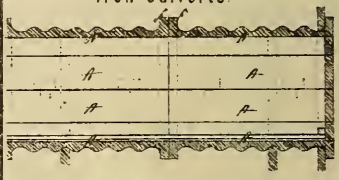


114,660 CANCELED.

114,661. L. F. FRAZEE.
Grain-Doors for Cars.

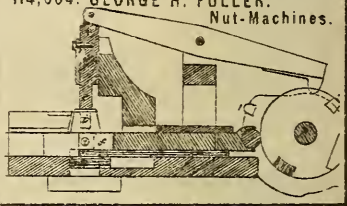


114,662. M. G. FREEMAN.
Iron-Culverts.

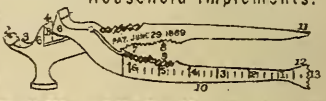


114,663. GEORGE C. FULLER.
Sleigh-Brakes.

114,664. GEORGE H. FULLER.
Nut-Machines.

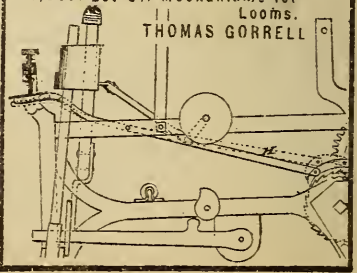


114,665. THOMAS GARRICK.
Household Implements.

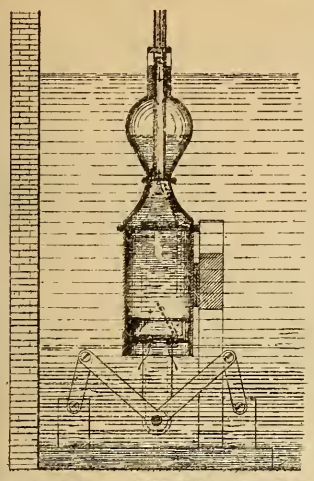


114,666.
F. W. GORDON.
Steam-Boilers.

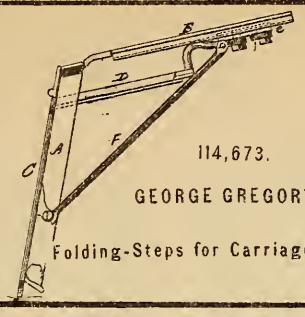
114,667. Let-Off Mechanisms for Looms.
THOMAS GORRELL



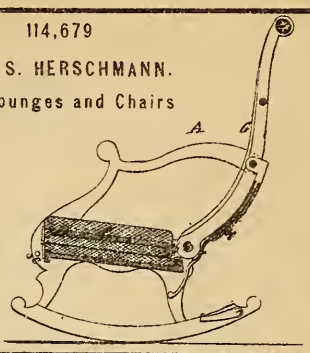
114,668. T. B. GOULDING. Pumps.



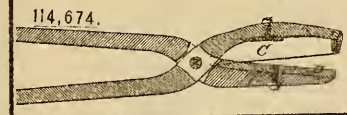
114,673.
GEORGE GREGORY.
Folding-Steps for Carriages.



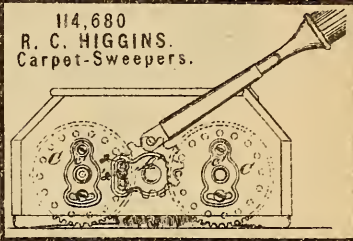
114,679
S. HERSCHMANN.
Lounges and Chairs



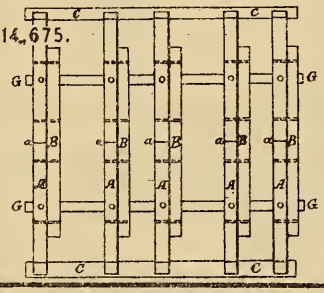
D. A. GRIFFITH. Stock-Markers.
114,674.



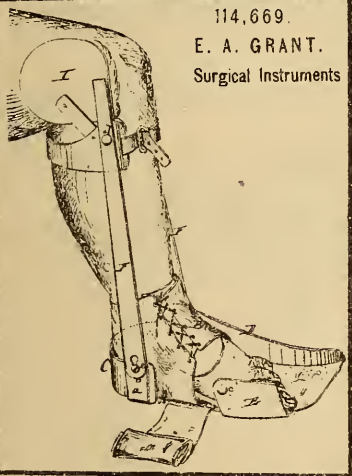
114,680
R. C. HIGGINS.
Carpet-Sweepers.



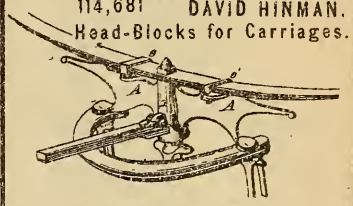
JOHN W. GRIFFITHS Railroad-Car
114,675.



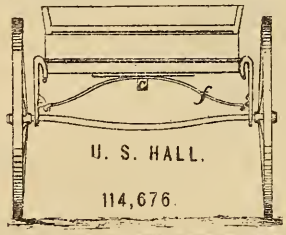
114,669.
E. A. GRANT.
Surgical Instruments



114,681 DAVID HINMAN.
Head-Blocks for Carriages.

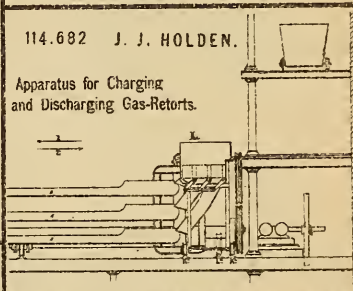


Attaching Springs to Carriages.

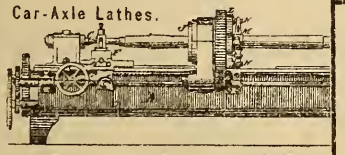


U. S. HALL.
114,676.

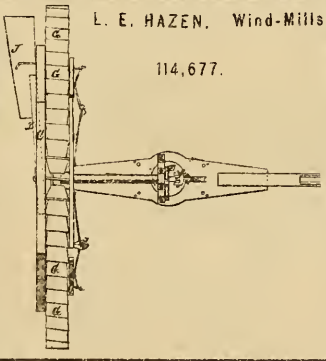
114,682 J. J. HOLDEN.
Apparatus for Charging and Discharging Gas-Retorts.



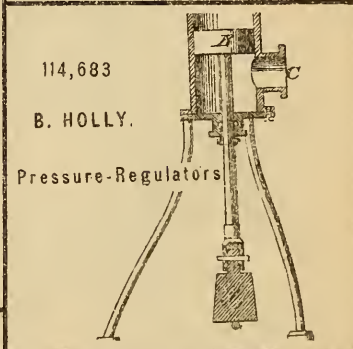
114,670 GEORGE A. GRAY, Jr.
Car-Axle Lathes.



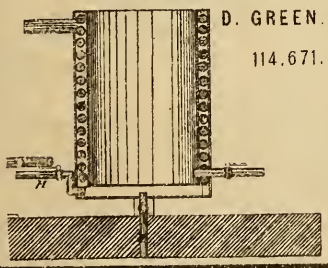
L. E. HAZEN. Wind-Mills.
114,677.



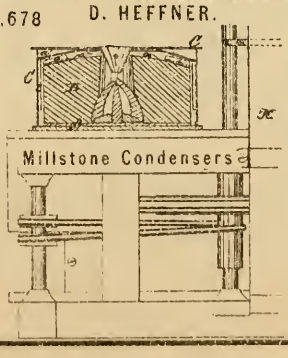
114,683
B. HOLLY.
Pressure-Regulators



Mashing and Brewing.
D. GREEN.
114,671.



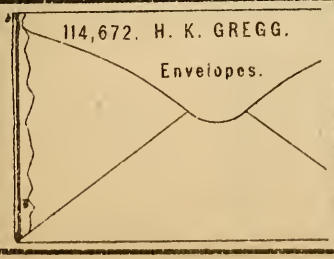
114,678 D. HEFFNER.



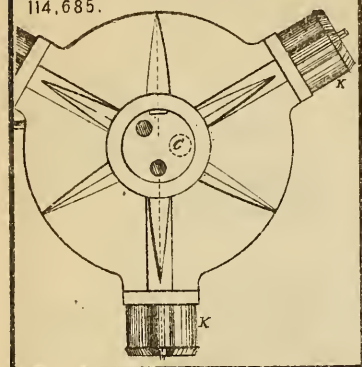
Millstone Condensers

C. F. H. HUFF.
A Sofa Bedsteads.
114,684

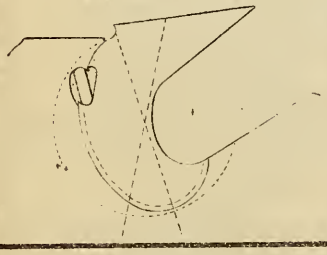
114,672. H. K. GREGG.
Envelopes.



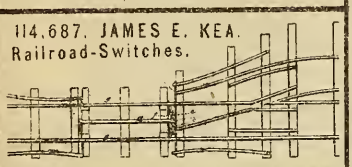
ROBERT HUGHES. Rotary-Engines.
114,685.



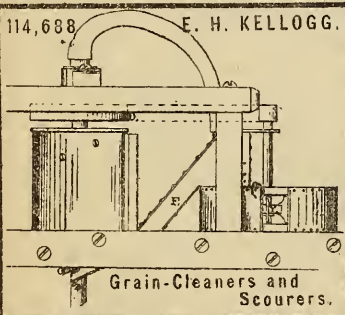
114,686. WILLIAM H. IVENS.
Insertable Saw-Teeth.



114,687. JAMES E. KEA.
Railroad-Switches.

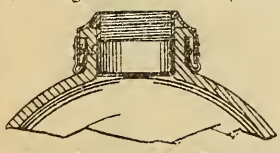


114,688 E. H. KELLOGG.

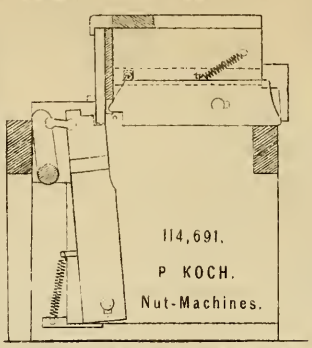


Grain-Cleaners and Scourers.

114,689 EDWARD S. KENNEDY.
Securing Collars to Lamps, &c.



114,690.
WILLIAM R. KING
Bee-Hives.

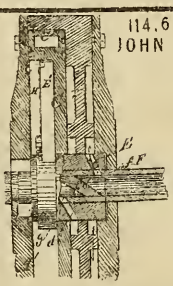


114,691.
P KOCH.
Nut-Machines.

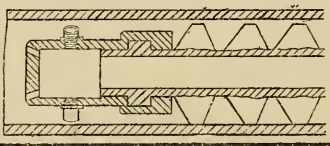
114,692.
MARSHALL LEFFERTS.
Chemical Electric-Telegraphs.

111,693, GEORGE T. LEWIS.
GRINDING PHOSPHATE SUBSTANCES.

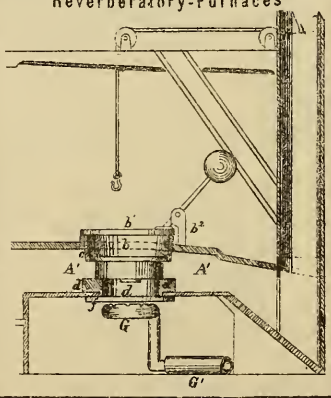
114,694.
JOHN P. LINDSAY.
Water-Meter



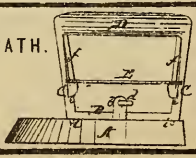
114,695. CHARLES LUNGLEY.
Apparatus for Cleaning Tubes,



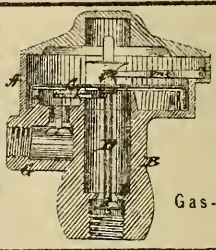
114,696. THOMAS W. LYON
Reverberatory-Furnaces



ROBERT McGRATH.
Sad-Irons
114,698.

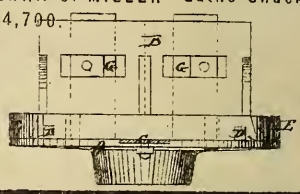


114,697.
R Y. MARTIN
Whisk-Brooms.

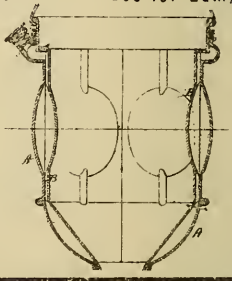


114,699.
JOSEPH S. MERRIKEN.
Gas-Regulators

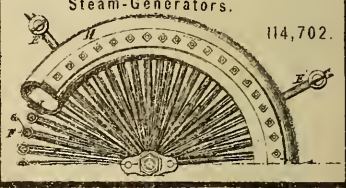
JOHN C. MILLER Lathe-Chucks.
114,700.



114,701. GEORGE W. MORRISON.
Lenticular Globes for Lamps.

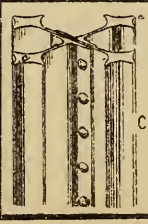


THOMAS W. H. MOSELEY.
Steam-Generators.
114,702.



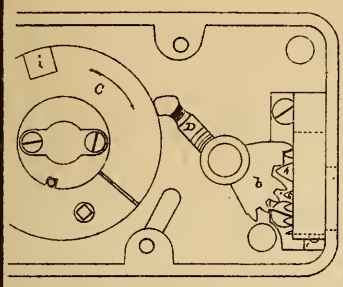
JOSEPH N. NEWELL. Wrenches.
114,703.

114,704. O. S. OSGOOD.
Bed-Bottoms.

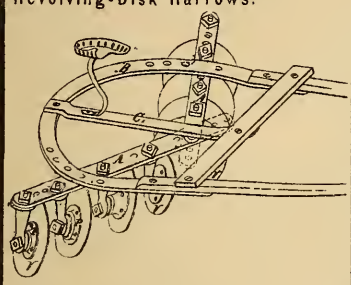


114,705.
CHARLES H. PARKER.
Wrought-Iron and Steel Columns.

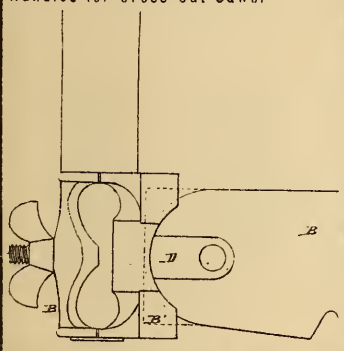
O. E. PILLARD. 114,706.
Permutation-Locks.



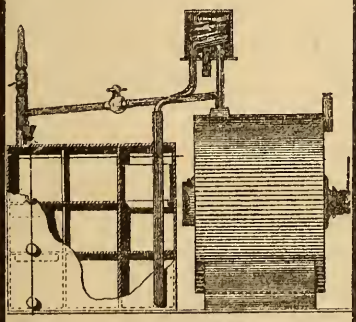
114,707. J. F. POND.
Revolving-Disk Harrows.



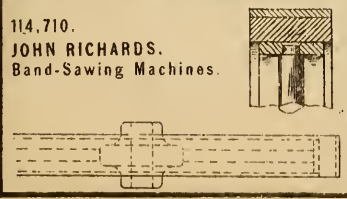
114,708. ROBERT REID.
Handles for Cross-Cut Saws.



114,709. GEORGE REX.
Apparatus for Carbureting Air.

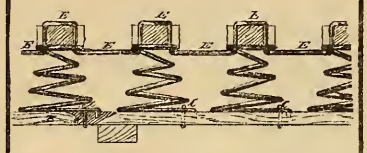


114,710.
JOHN RICHARDS.
Band-Sawing Machines.

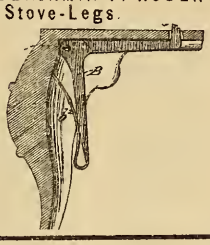


114,711. JOHN RILEY.
COMPOSITIONS FOR COVERING STEAM-BOILERS, &c.

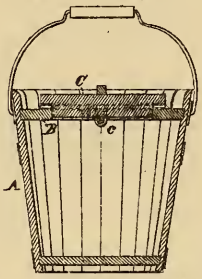
114,712. GEORGE W. ROBBINS
Spring Bed-Bottoms.



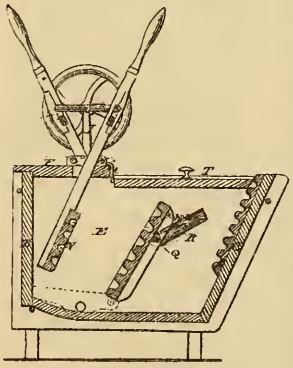
114,713 BENJAMIN F. ROBERTS.
Stove-Legs.



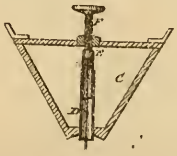
114,714. A. ROBERTSON
Butter-Pails, &c.



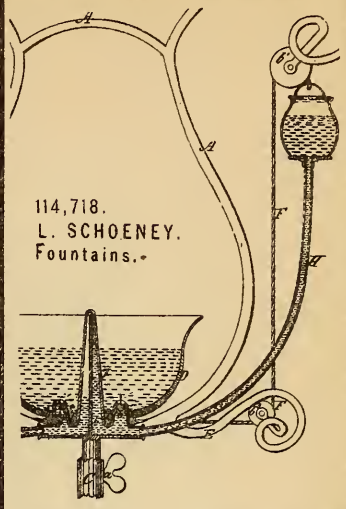
114,715. JOB ROBINSON.
Washing-Machines.



114,716. M. G. RYAN. Lubricators.

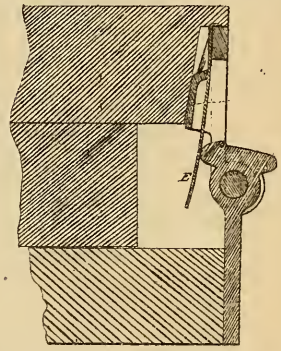


114,717, HARVEY SAWYER.
MEDICAL COMPOUNDS FOR CURE OF RHEUMATISM.

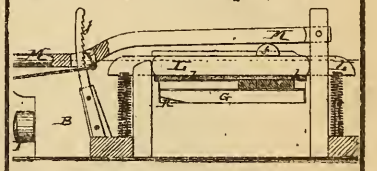


114,718.
L. SCHOENEY.
Fountains.

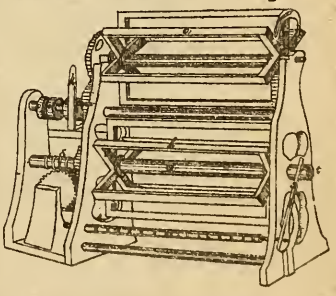
114,719. N. SEHNER Spring-Hinges



114,720. A. SHERMAN.
Machines for Tenoning Spokes.

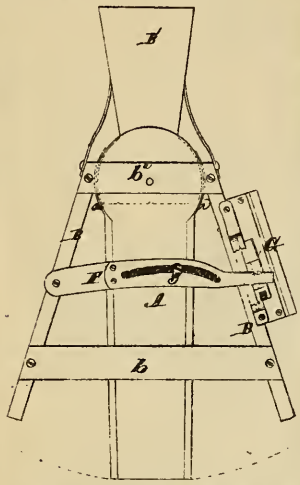


114,721. SAMUEL K. SMITH.
Measuring, Stretching and Skeining Silk.



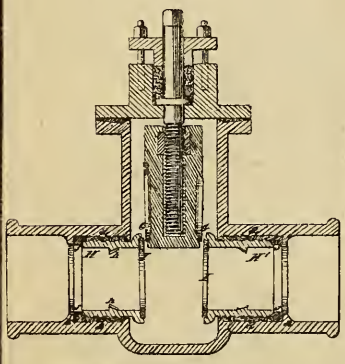
114,722.
F. SOUWEINE.
Extension-Tables.

114,723.
WILLIAM HENRY STINSON.
Grain-Registering Devices.

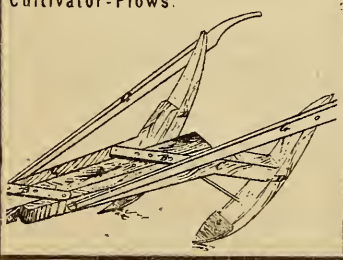


114,724.
L. R. STOCKBRIDGE.
Balmorals or Laced Boots.

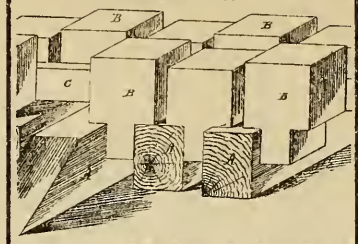
114,725. J. H. STREHLI.
Stop-Valves.



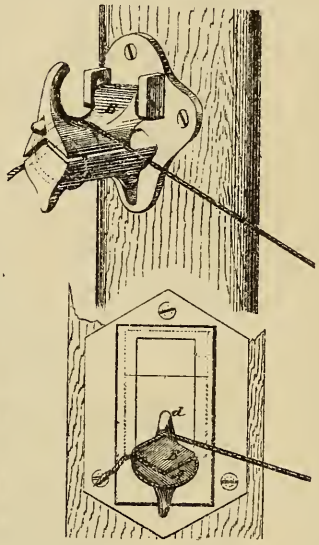
114,726.
L. S. TEWELL.
Cultivator-Plows.



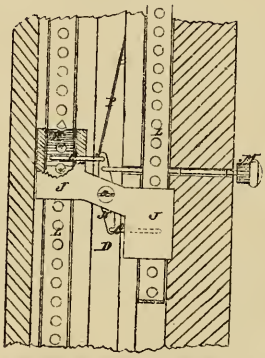
114,727. H. H. THAYER.
Wood Pavements.



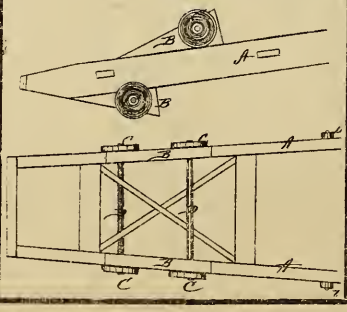
114,728. C. L. TOPLIFF
Clothes-Line Holder



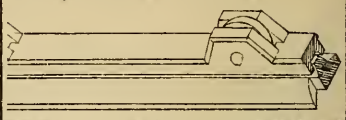
114,729 C. VAN HOASEN
Sash-Balances



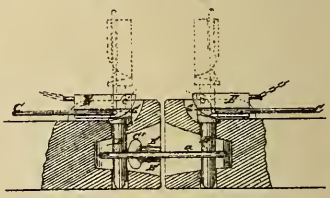
114,730. WAGNER & BUSHNELL
Elevating Truck



114,731 GEORGE L. WAITT.
Sliding-Door and Sash Guides.

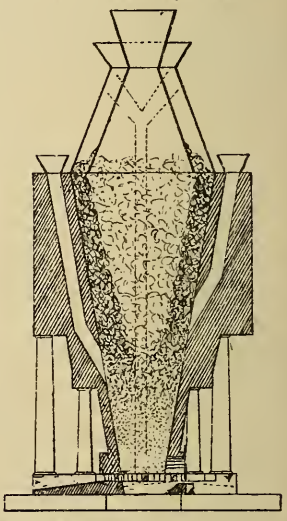


114,732. WILLIAM K. WALLACE &
EDWARD C. RUTLEDGE.
Car-Couplings.

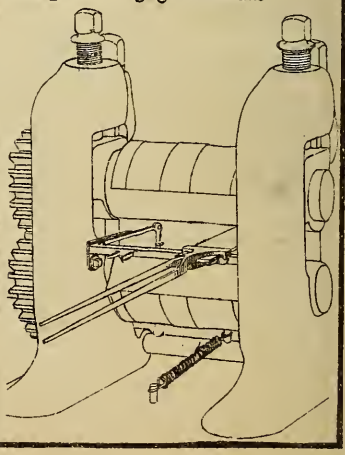


114,733. JOHN C. WANDS.
Metallic Roofings.

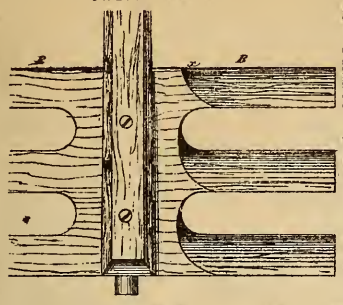
114,734. JOSEPH E. WARE.
Furnaces for Reducing Ores.



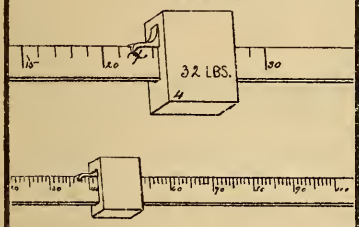
114,735. H. WATERS.
Guiding and Gauging Mechanisms



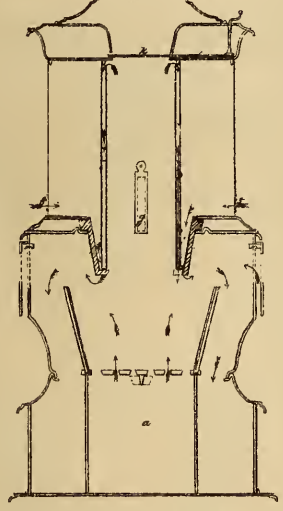
114,736. H. L. WELLS.
Churn-Dasher.



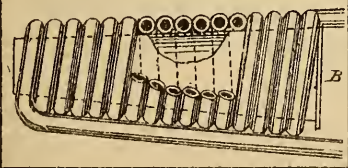
114,737. H. P. WHEELER.
Weighing-Scales.



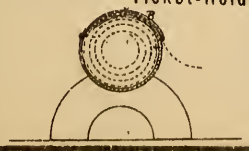
114,738 A. WHITE.
Base-Burning Stoves.



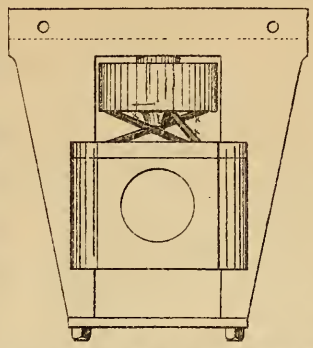
114,739 JOHN WOOD, Jr.
Tuyeres.



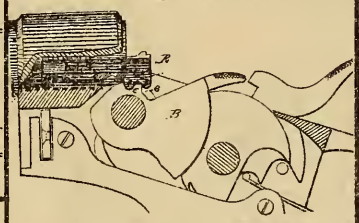
114,740. E. M. WRIGHT.
Ticket-Holders.



114,741. S. YERKES, Jr.
Railway-Car Springs

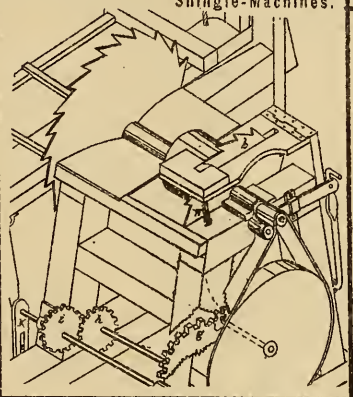


114,742. J. YGLESIAS.
Breech-Loading Fire-Arms.



4,370. WILLIAM BERREY.
DETERGENT COMPOUNDS.

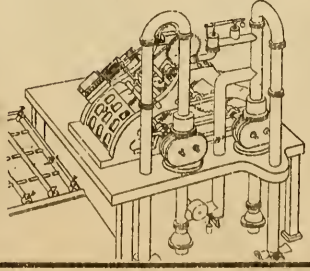
4,371 W. R. CLOSE.
Shingle-Machines.



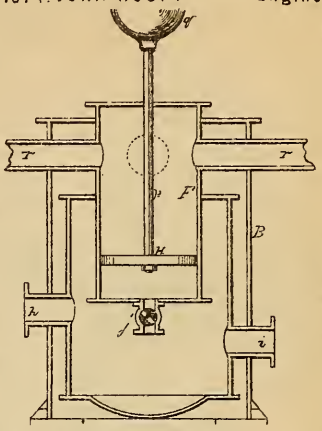
4,372

N. W. Green,
Well Tubing.

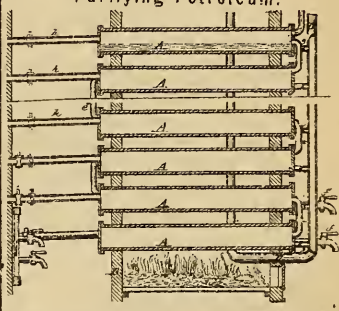
4,373. B. HOLLY.
Systems of Water-Supply for Cities



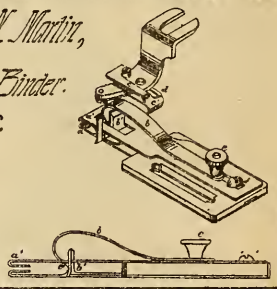
4,374. JOHN HOUPT Steam-Engine



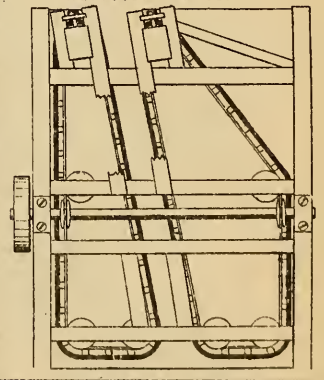
4,375. KELLEY & TAIT.
Purifying Petroleum.



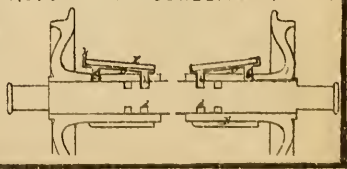
W. N. Martin,
Binder.
4,376.



4,377. C. G. DICKINSON.
Harvester-Rakes.



4,378. C. D. TISDALE. Car-Trucks



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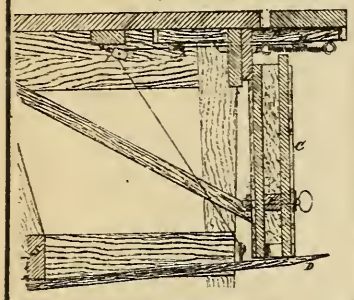
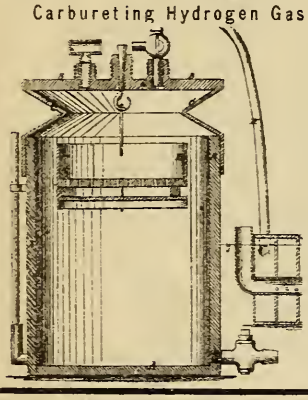
MAY 16, 1871.

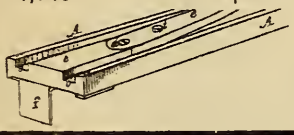
114,743 A. ADAMS. Paper-Bag Machines.



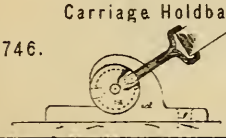
114,744. JACOB AMBUHL Carbureting Hydrogen Gas.



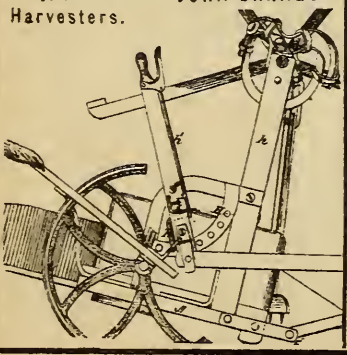
CHARLES C. ASH. 114,745 Car-Replacers.



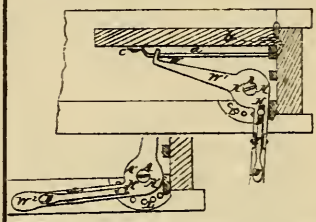
WILLIAM R. BAKER. Carriage Holdbacks. 114,746.



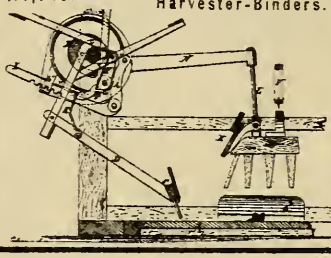
114,747 JOHN BARNES. Harvesters.



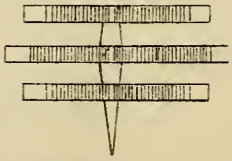
114,748. HENRY H. BARR Shutter-Workers.



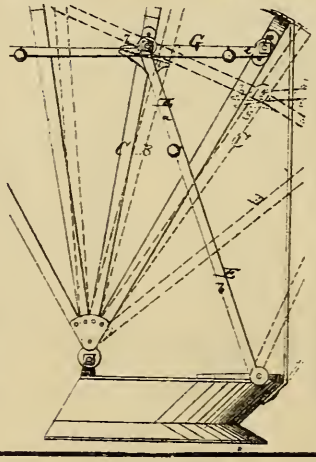
114,749. JOSEPH BARTA. Harvester-Binders.



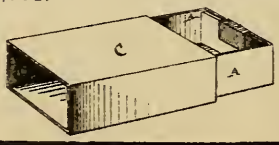
114,750. J. C. BATTERSBY. Sticking or Adhesive Plasters.



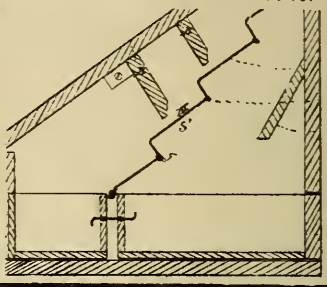
WILLIAM BAUDER. 114,751. Carriage-Tops.



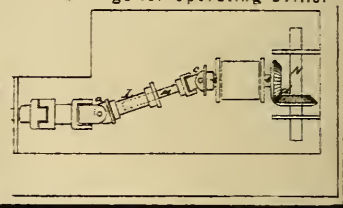
P. BEER. 114,752. Paper-Boxes.



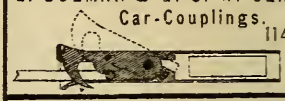
114,753. E. G. BELKNAP. Coal-Screens.



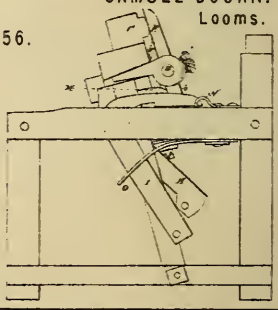
114,754 A. BLATCHLY. Gearings for Operating Drills.



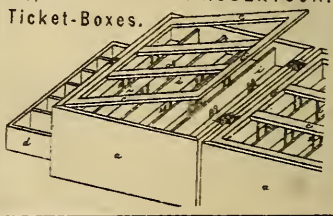
E. BOLMAN & G. S. W. CLARKE. Car-Couplings. 114,755.



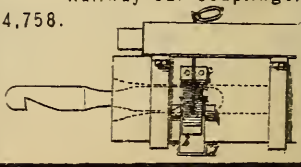
SAMUEL BOORN. Looms. 114,756.



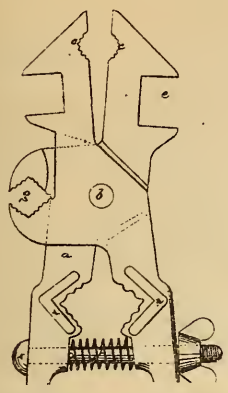
N. C. BURSON & JOHN W. ROBERTSON. 114,757. Ticket-Boxes.



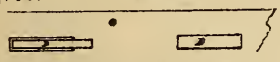
P. CAMPBELL. Railway-Car Couplings. 114,758.



GEORGE J. CAPEWELL.
114,759. Combined Tools.

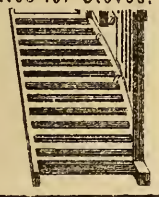


WILLIAM J. CARROLL.
114,760. Cotton-Bale Ties.



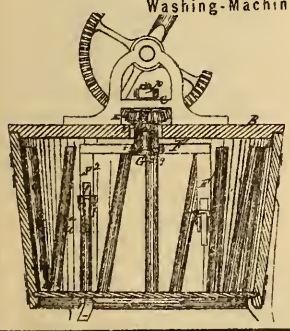
114,761. ISAAC CHARLES.
CEMENTS FOR COATING AND SEALING COFFINS. &c.

114,762.
JOHN CHURCHMAN.
Grates for Stoves, &c.

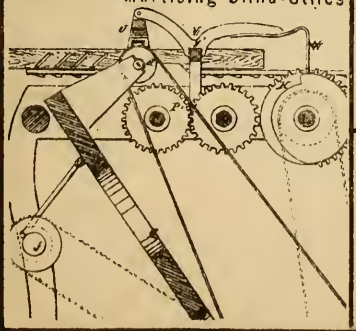


114,763. DEOLUS W. CLARK.
ENAMELING GAS-RETORTS.

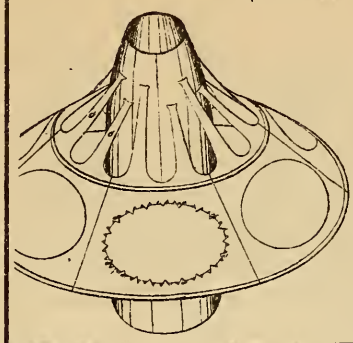
114,764. N. G. CLARY.
Washing-Machines.



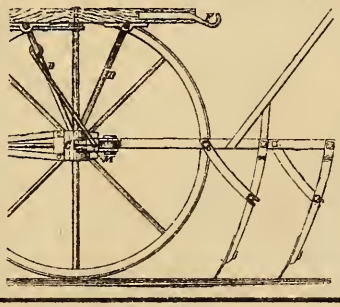
L. M. COLLINS.
114,765. Mortising Blind-Stiles



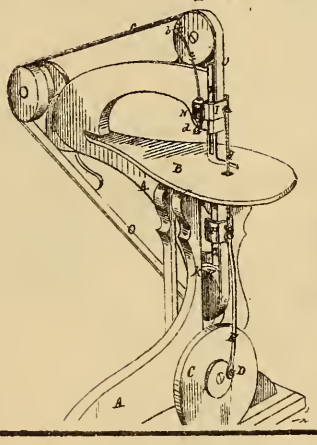
114,766. M. H. COLLINS.
Lamp-Shades.



114,767. JOHN H. CONLEY.
Cultivators.

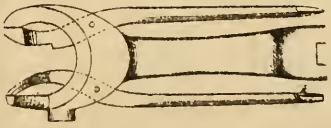


GEORGE COOK.
114,768 Scroll-Sawing Machines.

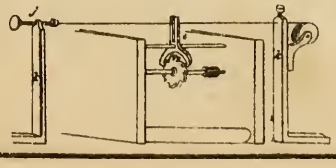


114,769 CANCELED.

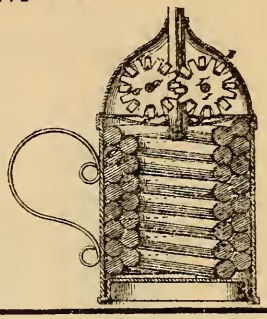
JOHN W. CURRIER.
114,770. Combined Tools.



114,771. L. G. D'ARLINCOURT.
Electric-Telegraphs.

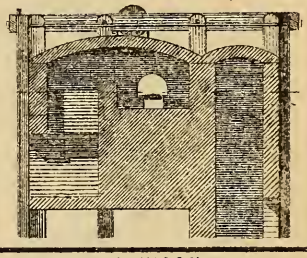


SAMUEL G. DARE.
114,772 Feeders for Wax-Tapers.



Elastic Types.
114,773. H. J. DAVIES.

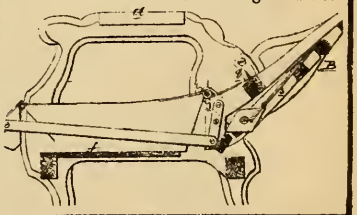
JOSEPH DAVIS.
114,774. Reverberatory Furnaces.



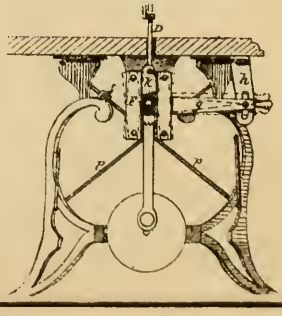
JOHN C. DAVISON. 114,775.
Acid Bottles for Fire-Extinguishers.

114,776 GEORGE C. LOUIS DEGENHARDT
PURIFYING WATER FOR STEAM-BOILERS.

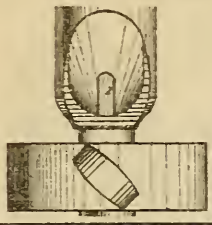
EDWARD DIETZ.
114,777. Reclining-Chairs.



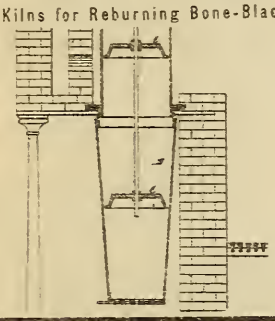
WILLIAM H. DOBSON. 114,778.
Scroll-Sawing Machines.



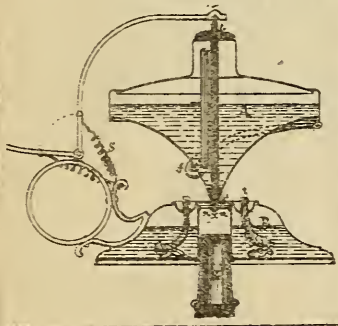
114,779. JOHN E. DONALDSON.
Moiding-Planes.



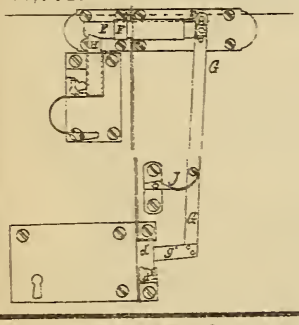
EDWARD P. EASTWICK. 114,780
Kilns for Reburning Bone-Black.



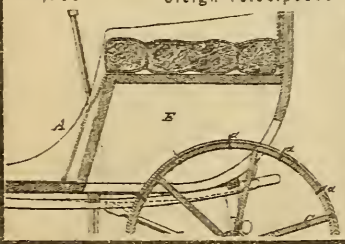
P. ELEY.
114,781. Spinning-Tops



F. ENGELBRECHT.
114,782. Door-Bolts.

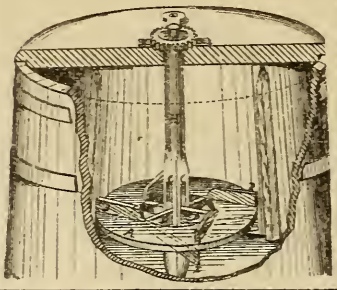


WILLIAM ERD.
114,783 Sleigh-Velocipedes

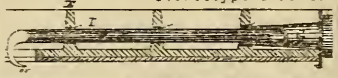


114,784, WILLIAM P. FENNELL.
COMPOUNDS FOR CURE OF CHILLS

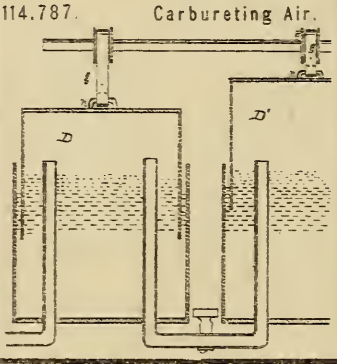
114,785. JOHN E FINLEY
Churns.



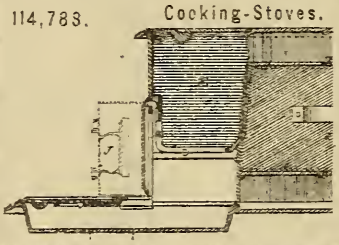
JAMES FISH.
114,786 Stereotype-Blocks.



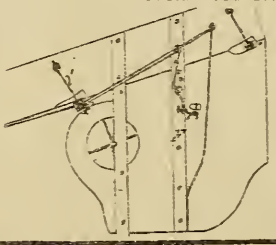
R. B. FITTS.
114,787. Carbureting Air.



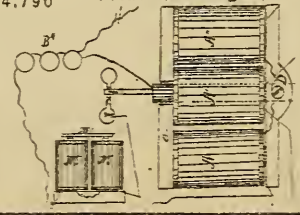
B. G. FITZHUGH.
114,788. Cooking-Stoves.



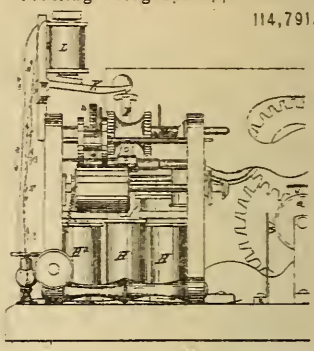
P. FLICKINGER.
114,789. Grain-Separators



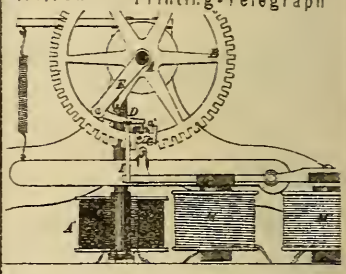
FOOTE & RANDALL
114,790 Printing-Telegraph



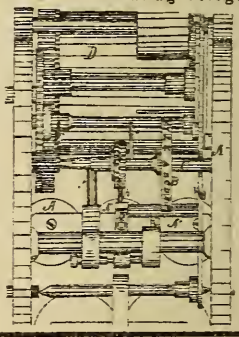
T. M. FOOTE & CHARLES A. RANDALL
Printing-Telegraph Apparatus.
114,791.



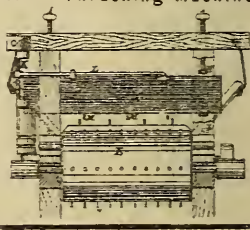
FOOTE & RANDALL.
114,792. Printing-Telegraph



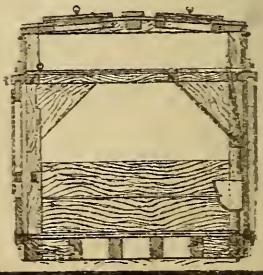
T. M. FOOTE & CHARLES A. RANDALL
114,793. Printing-Telegraphs.



JOHN FOREMAN.
114,794. Thrashing-Machines.



G. W. FOX.
114,795. Stock-Cars.

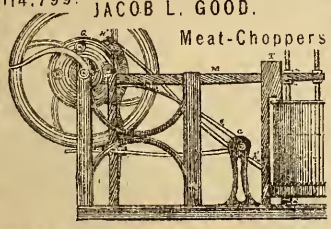


114,796. N. FREY.
Wagon-Springs.

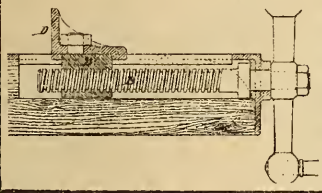
114,797. E. M. GEORGE.
Car-Couplings.

114,798, LEANDER C. GIFFORD.
COMPOUNDS FOR PRESERVING FRUIT-TREES.

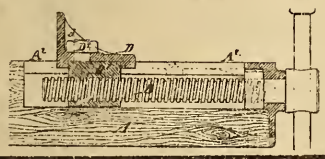
114,799. JACOB L. GOOD.
Meat-Choppers



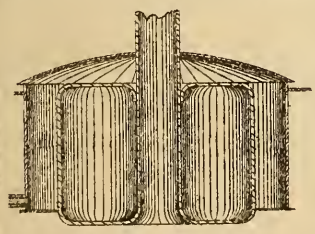
WILLIAM H. GOODCHILD.
114,800. Joiners' Clamps.



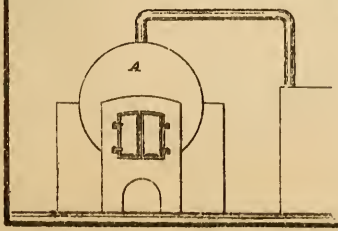
WILLIAM H. GOODCHILD.
114,801. Joiners Clamps.



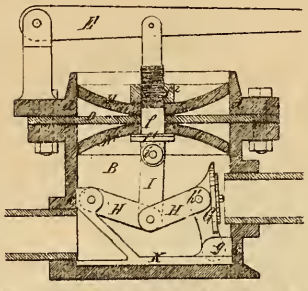
J. GRACIE.
114,802. Stills for Hydrocarbons.



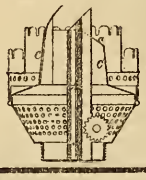
J. GRACIE.
114,803. Stills for Oil.



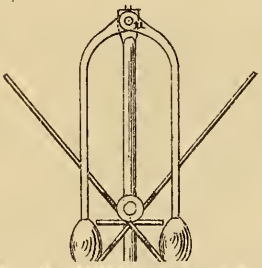
JOSEPH GUILD.
114,804. Automatic Water-Valves.



E. J. HALE.
114,805. Lamp-Burners.

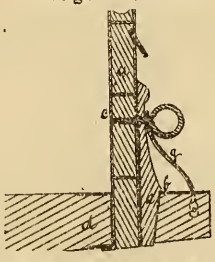


E. R. HALL & D. A. KEYES.
114,806 Stove-Pipe Dampers.

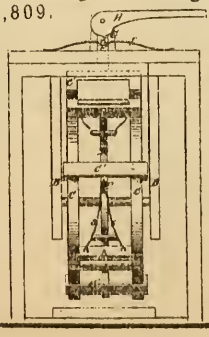


E. C. HANCOCK.
114,807. Projectiles.

J. HARDING.
Wagon-Standards.
114,808.



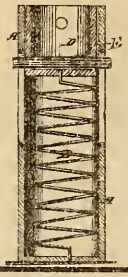
D. HARRINGTON.
Polishing, and Glassing Leather.
114,809.



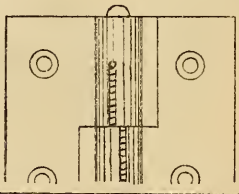
JAMES HARRISON.
COMPOUNDS
114,810,

114,811. JAMES HARRISON.
Signs.

D. F. HARTMAN.
114,812. Spring-Guards

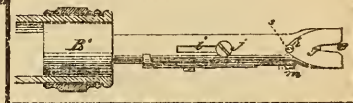


D. B. HAWKES.
114,813 Spring-Hinges.

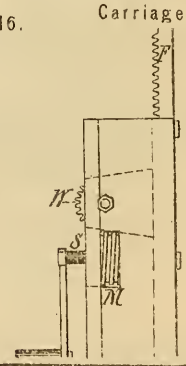


E. HEATH.
114,814. Dovetailing-Machines.

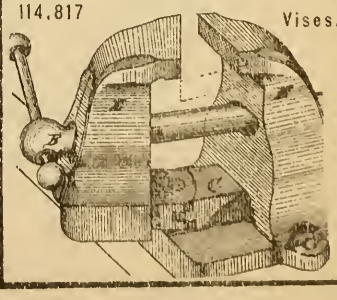
114,815. E. E. HENDRICK.
Needle-Cases, and Rippers.



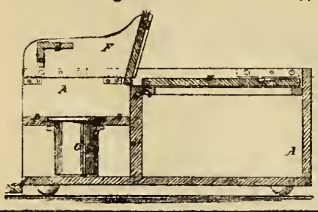
DAVID HIESTAND.
114,816. Carriage-Jacks.



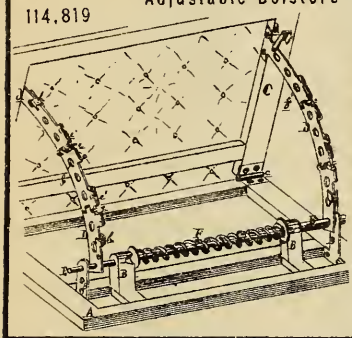
FRANK HIGEL.
114,817 Vises.



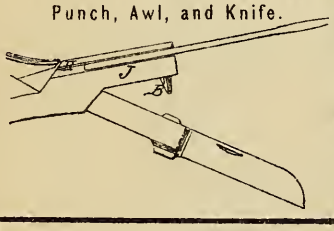
114,818. E. HOARE.
Traveling and Toilet Chairs.



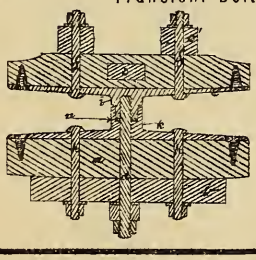
JACOB HOFMANN.
Adjustable Bolsters
114,819



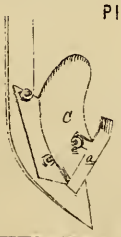
114,820.
H. S. HOLMES & D. WILLIAMS.
Punch, Awl, and Knife.



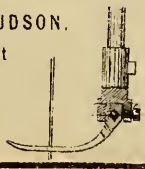
C. G. HOLSTEN.
114,821. Transient-Bolts



114,822. H. S. HOXIE.
Plow-Colters.



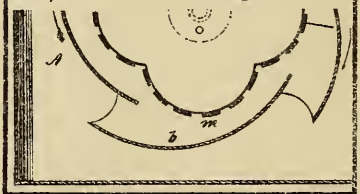
114,823
THOMAS HUDSON.
Presser-Feet



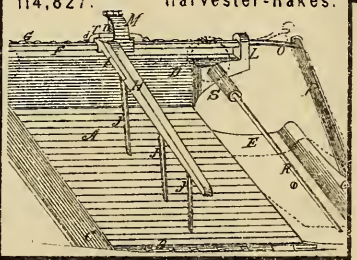
114,824. A. HYLAND.
Files.

W. JOHNSON. 114,825.
Rack-Pulley Shade-Fixtures.

GEORGE F. JORDAN.
114,826. Washing-Machines.

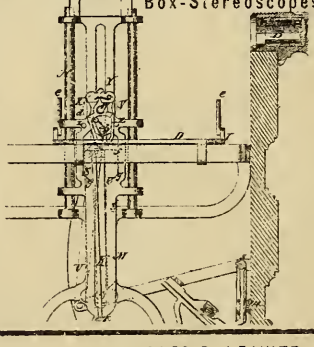


D. A. KELLOGG.
114,827. Harvester-Rakes.

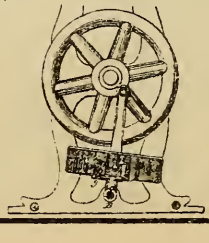


114,828. ROBERT P. KNAPP.
Improvement in Umbrellas.

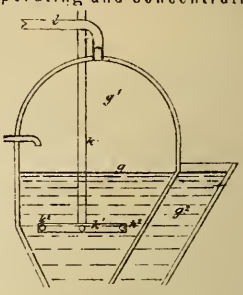
WILLIAM M. KOHL. 114,829
Box-Stereoscopes.



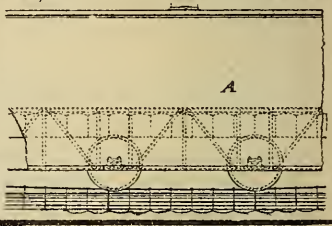
114,830. CHARLES P. LEAVITT.
Treadles.



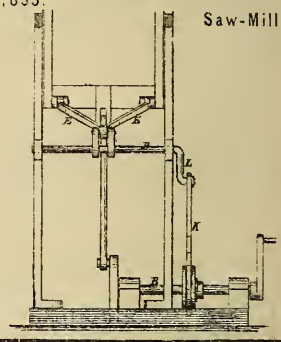
114,831. R. G. LECKIE.
Evaporating and Concentrating



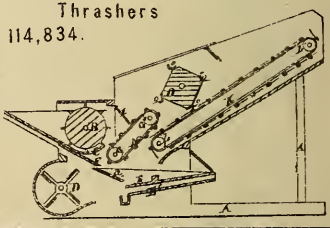
S. LEE.
114,832 Marine-Locomotives.



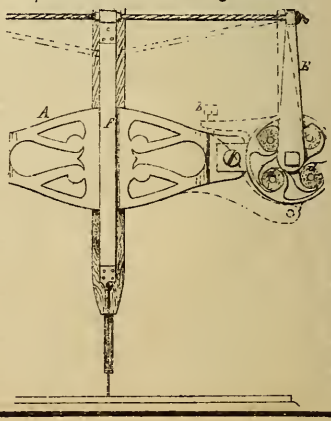
114,833. CHARLES E. LEWIS.
Saw-Mills.



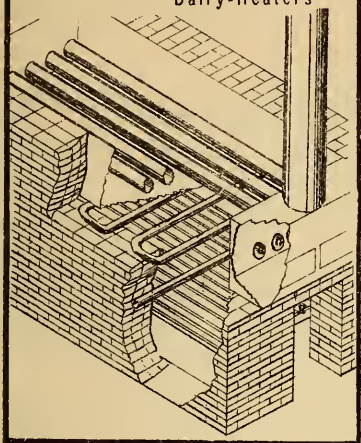
WILLIAM C. LEYBURN.
Thrashers
114,834.



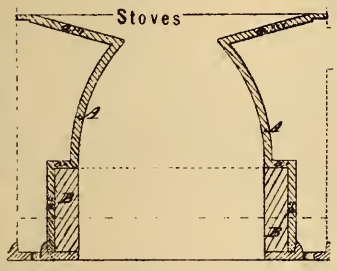
S. G. MASON.
114,835. Scroll-Sawing-Machines.



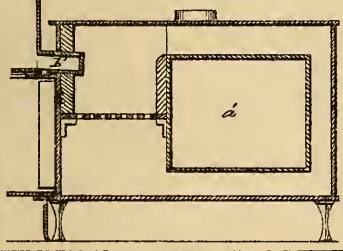
114,836.
GEORGE W. McCAMMON & D. H. BURRELL
Dairy-Heaters



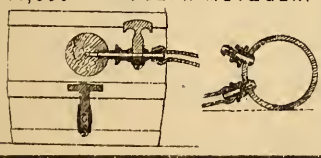
WILLIAM L. McDOWELL. 114,837
Fire-Boxes for Heating Stoves



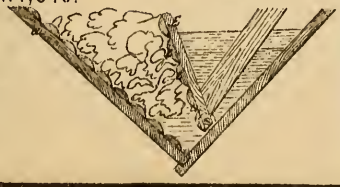
114,838.
WILLIAM L McDOWELL.
Cooking-Stoves.



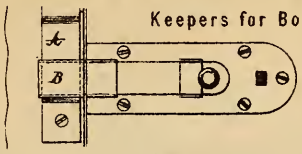
Aerating Beer-Barrels.
114,839 JOSEPH METZGER.



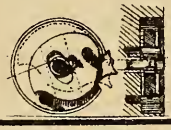
Washing-Machines.
114,840. L. R. MILLS.



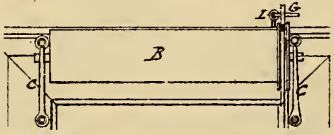
JOHN M. MITCHELL 114,841
Keepers for Bolts.



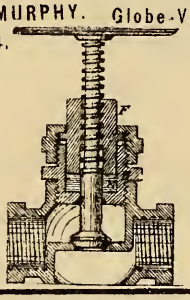
JOHN H. MORSE.
114,842. Sash-Holders.



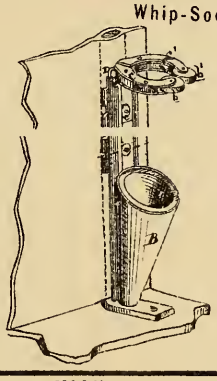
B. MOSER.
114,843. Curtain-Fixtures.



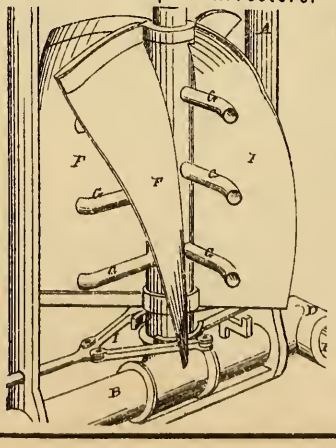
M. MURPHY. Globe-Valves.
114,844.



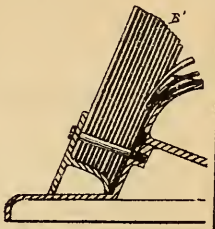
114,845 JAMES NELLIS.
Whip-Sockets.



MICHAEL O'CONNOR.
114,846. Spark-Arresters.

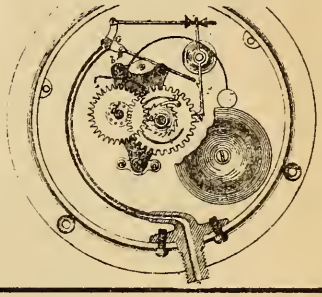


JOHN W. OSBORNE.
114,847. Foot-Brushes

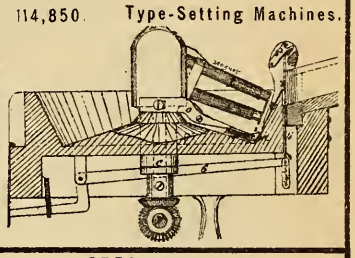


JOSIAH S. PHILLIPS.
114,848, PREVENTING THE LOSS OF MERCURY.

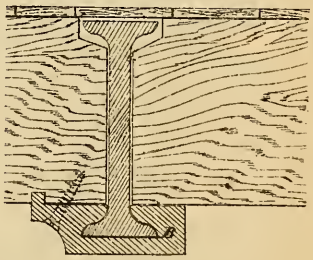
SHORB, PILLSBURY & 114,849
Hydraulic-Pressure Alarms.



THOMAS J. PLUNKET
114,850. Type-Setting Machines.

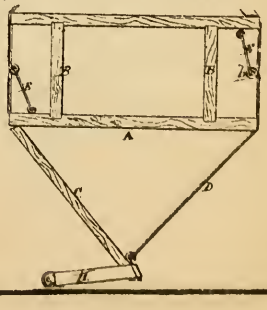


J. PRESTON.
114,851 Girder-Rests for Timbers.

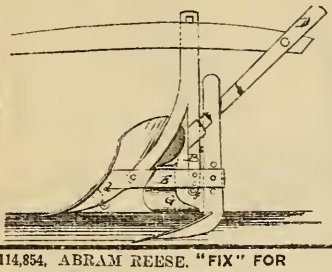


114,852. L. C. PRINDLE.
Curtain-Fixtures

F. W. RANDALL.
114,853. Securing Horse-Powers.



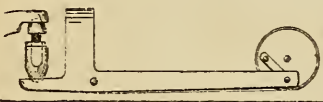
114,855. T. H. REYNOLDS. Plows.



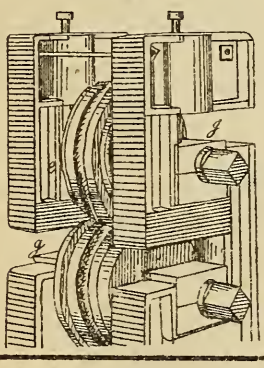
114,854. ABRAM REESE. "FIX" FOR PUDDLING AND OTHER FURNACES.

RICHMOND & CARPENTER. Finger-Rings. 114,856.

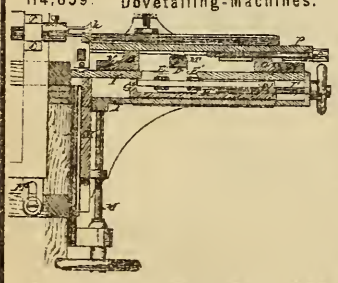
114,857. WILLIAM H. RIDLEY. Toggle-Pins for Nail-Machines.



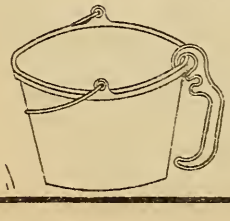
JOHN RIGBY. 114,858 Housings for Rolls



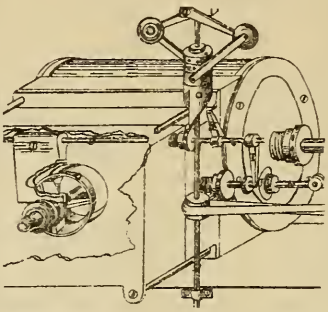
114,859. JOHN B. RITCHEY. Dovetailing-Machines.



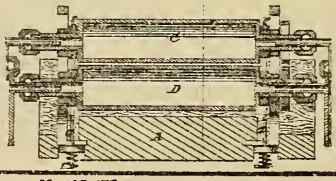
H. T. ROBBINS. 114,860. Kettle-Handles.



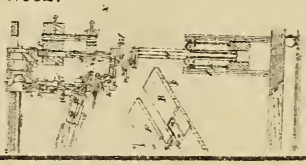
114,861. S. W. ROBINSON. Cut-Off Valve-Gears.



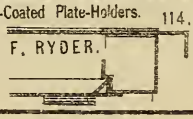
114,863. P. RUNDQUIST Steam-Mangles.



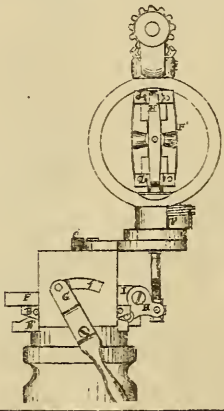
M. M. Kovinsky. Sewing Shoes 114,862.



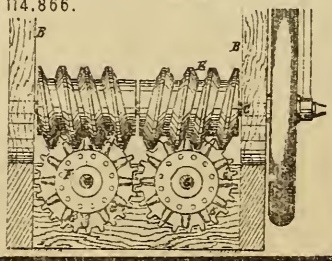
Metal-Coated Plate-Holders. 114,864. JAMES F. RYDER.



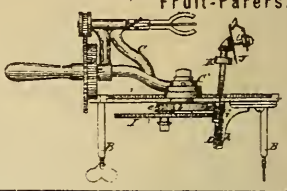
ROBERT SANDERSON. Steam-Valves and Governors. 114,865



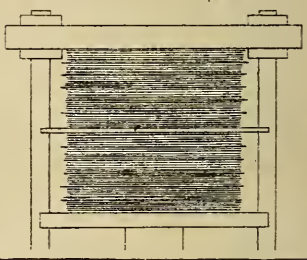
J. SCHLEY. Applying Motive-Power. 114,866.



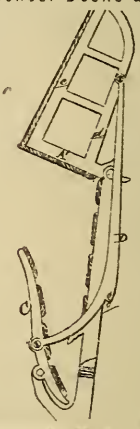
114,867. R. P. SCOTT. Fruit-Parers.



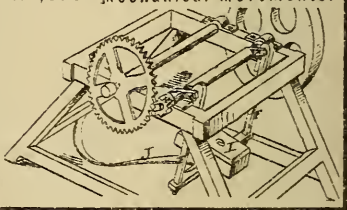
E. A. SEELEY. 114,868. Manufacture of Paper-Boards.



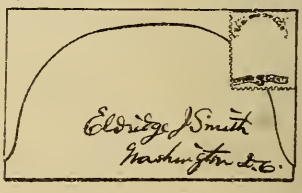
H. G. SELLMAN. School-Desks and Seats. 114,869.



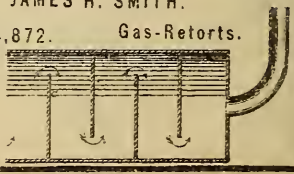
ABRAM SHEAR. 114,870. Mechanical Movements.



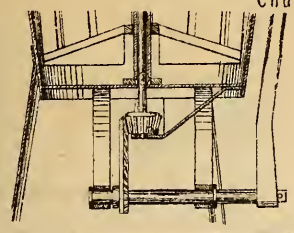
E. J. SMITH 114,871. Envelopes.



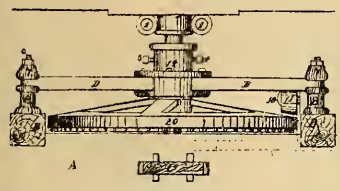
JAMES H. SMITH. 114,872. Gas-Retorts.



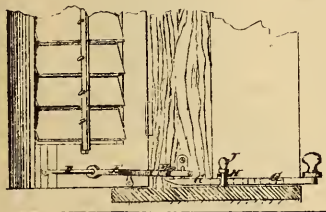
114,873 B. H. STEELE. Churns.



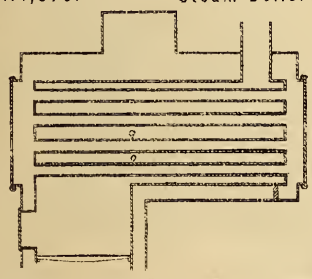
H. B. STEVENS.
114,874. Horse-Powers.



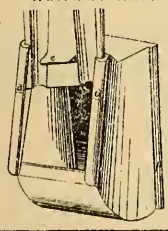
F. STRATTNER.
114,875. Shutter-Workers.

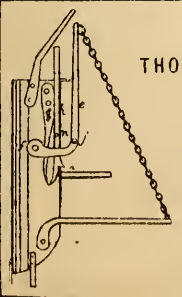


DANIEL SULLIVAN.
114,876. Steam-Boilers.



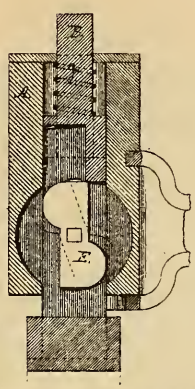
JOHN B. SUTHERLAND.
Railway Axle-Boxes.
114,877.





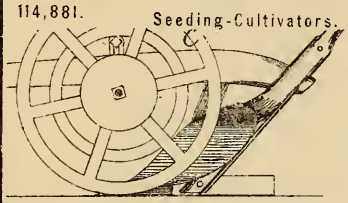
114,878.
THOMAS SYMONDS.
Excavators.

114,879. C. G. TAFT, Jr.
Hand-Stamps.

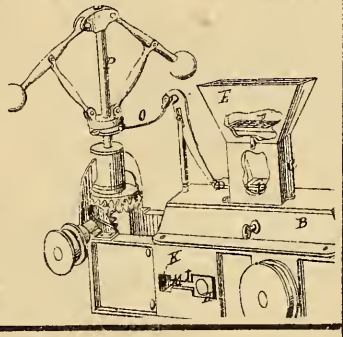


THOMAS TAYLOR.
114,880. PAPER-PULP.

N. S. THOMPSON.
114,881. Seeding-Cultivators.

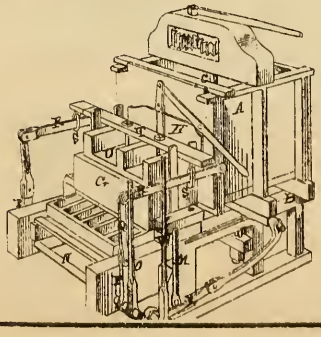


JAMES F. TIBBLE. 114,882.
Machines for Bruising Malt.



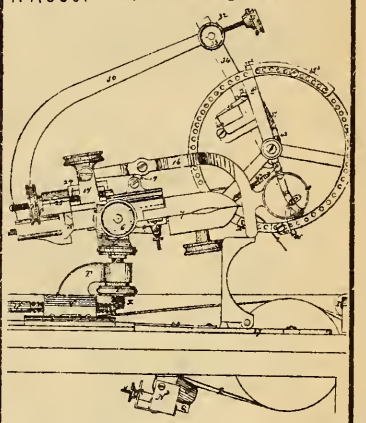
114,883
W. TOEPFER.
Smoke-Stacks

114,884.
J. V. TOMPKINS.
Brick-Machines

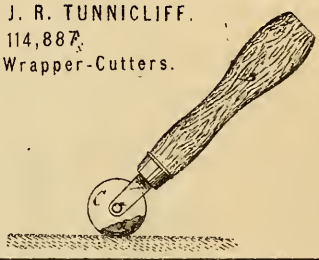


114,885.
I. N. TOPLIFF.
Carriage-Bow Covers and Slat-Irons.

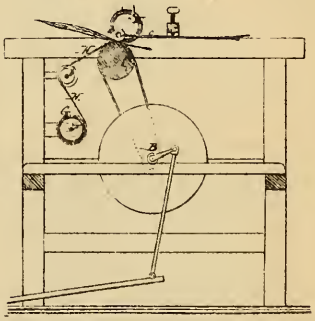
JAMES TREGURTHA.
114,886. Paper-Ruling Machines.



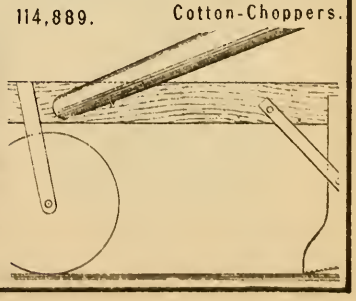
J. R. TUNNICLIFF.
114,887.
Wrapper-Cutters.



114,888 J. R. TUNNICLIFF.
Stripping and Booking Tobacco.

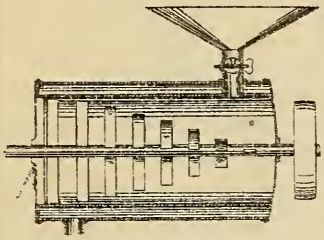


E. B. TURNIPSEED.
114,889. Cotton-Choppers.

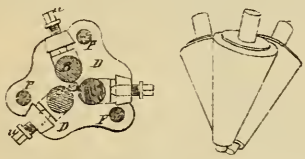


114,890. WILLIAM A. VANCE.
Millstone-Balances.

114,891. G. W. WAITT.
Roasted Wheat.

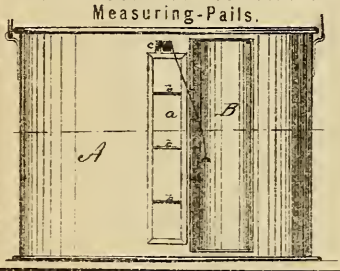


WHILE, LEWIS, STRICKLAND & CADDICK. 114,892.
Apparatus for Rolling Metal.

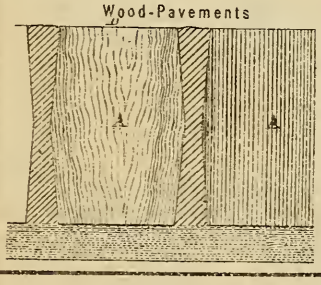


114,893. H. S. WICKHAM.
Pencil-Holders.

114,894. JOHN B. WIGHTMAN.
Measuring-Pails.

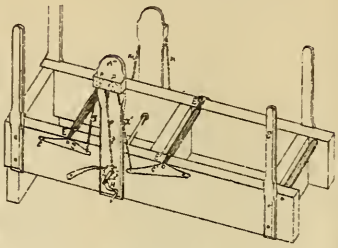


114,895 R. H. WILLET.
Wood-Pavements

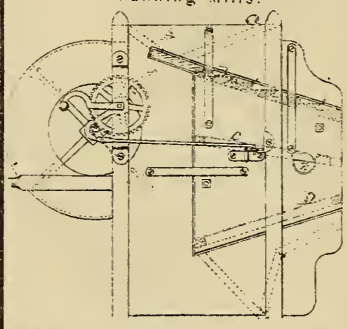


114,896 JAMES WILSON.
Millstone-Dress

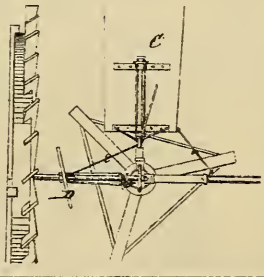
114,897. R. B. WOODCOCK.
Lumber-Racks.



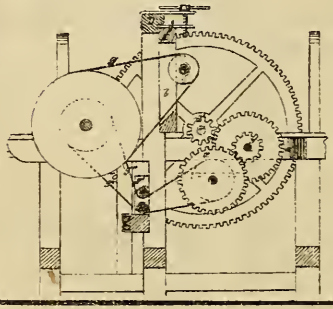
114,898. P. YOUNG.
Fanning-Mills.



114,899 S. M. ABBOTT.
Windmills.

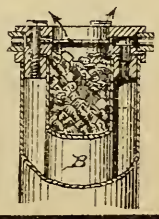


114,900. JOSEPH ALBRIGHT
Molding-Machines.

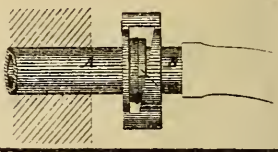


114,901. DAVID ALONZO ALDEN.
PREPARATION OF TOBACCO FOR CHEWING.

V. D. ANDERSON. 114,902.
Steam-Radiators

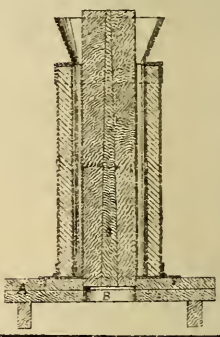


114,903 V. D. ANDERSON.
Pipe-Couplings.

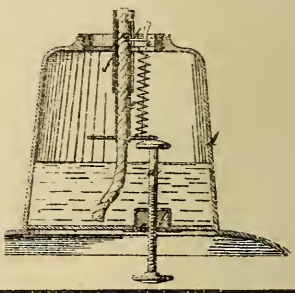


114,904,
THOS. J. BARRON.
WATER AND DRAIN-PIPES.

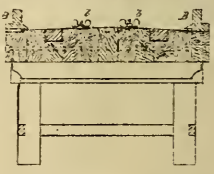
114,905. THOMAS J. BARRON.
Improvement in Molds.



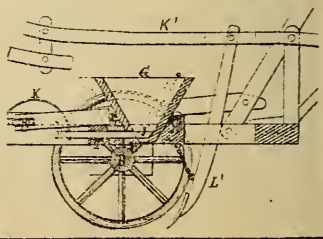
HENRY BEEBE. 114,906
Wick-Regulators for Lamps.



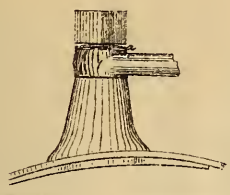
114,907
JOHN W. BOUGHTON & E. C. HUSSEY
Tables for Making Wainscoting.



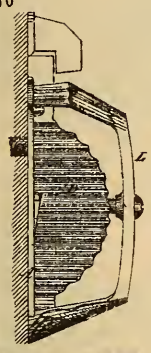
WILLIAM C. BOWMAN.
Corn-Planters.
114,908.



114,909 F. A. BRADLEY.
Top-Props for Carriages.

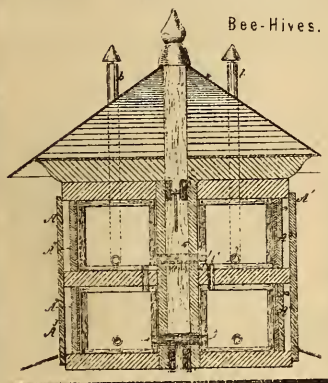


114,910 E. K. BRECKENRIDGE.
Door-Latches.

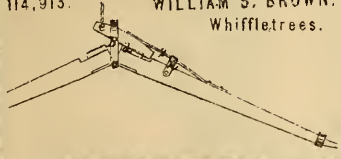


114,911. DAVID BROOKS.
GALVANIC BATTERIES.

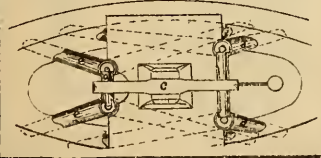
114,912. JAMES F. BROOMFIELD.
Bee-Hives.



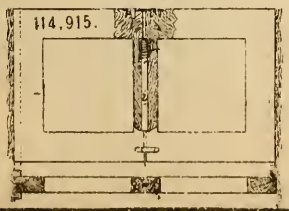
114,913. WILLIAM S. BROWN.
Whiffletrees.



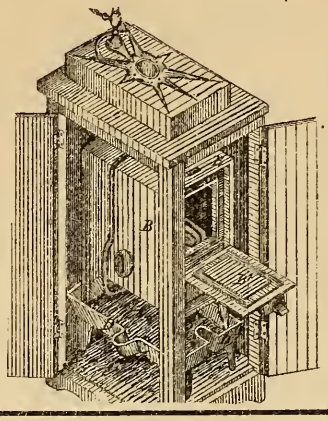
P. BURKE.
114,914. Propulsion of Vessels.



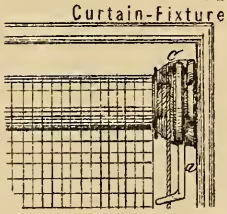
A. G. BUZBY. Window-Sashes.
114,915.



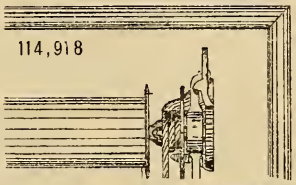
114,916. JOHN W. CAMPBELL, Sr.
Coolers for Liquids.



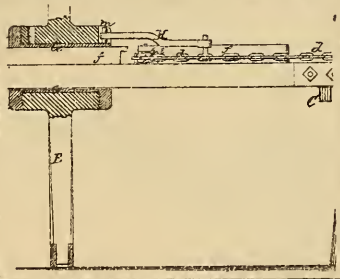
114,917. N. CAMPBELL
Curtain-Fixtures.



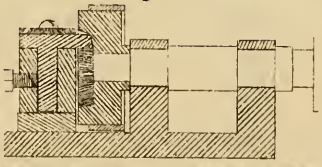
114,918



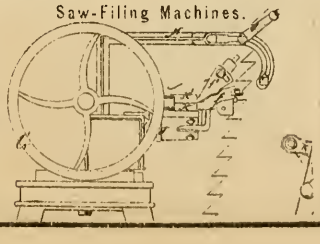
114,919 F. L. CARNELL.
Wheels for Tempering Clay.



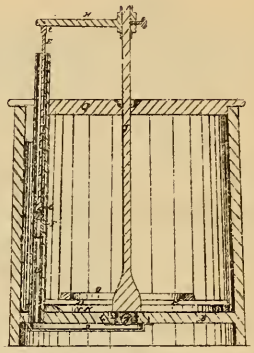
114,920. A. H. CARYL.
Pointing Horseshoe-Nails.



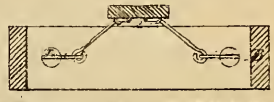
114,921. CHARLES P. CASE.
Saw-Filing Machines.



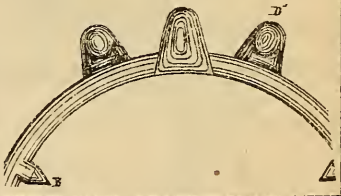
114,922 S. S. CASE. Churns.



114,923. JAMES P CHAMBERLIN.
Bed and Seat Springs.



114,924 S. CHESTER.
Telegraph-Insulators

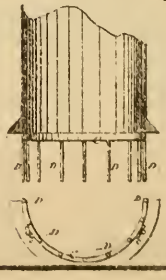


F. L. CHURCHILL & R. C. BEACH
Breeching-Holders for Harness.
114,925.

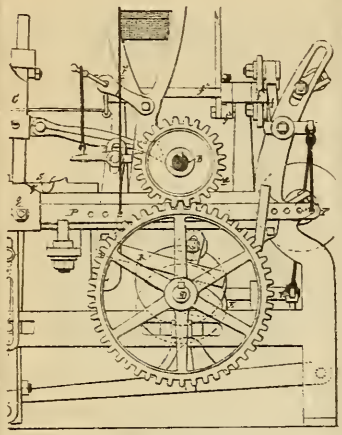
GEORGE W. COLBORN.
114,926 Attaching Saws

114,927. SAMUEL C. COLLIS.
Metallic-Signs.

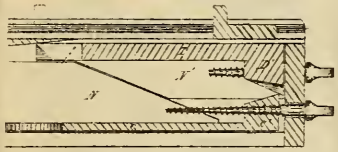
114,928. A. C. CORSE.
Base-Burning Stoves.



114,929. J. F CROWLEY. Looms.



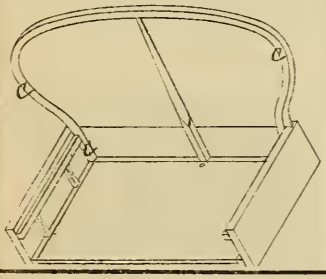
J. W. CURRIER.
114,930. Bread-Slicers.



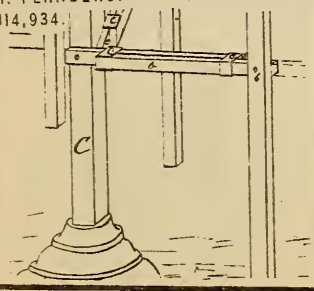
114,931. CHARLES E. DAYTON.
Can-Tops.

N. DUBRUL.
114,932. Cigar-Molds.

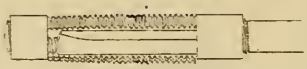
114,933 W. FISHER.
Dashers for Wheeled Vehicles.



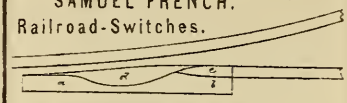
M. FLANDERS. Clothes-Driers.
114,934.



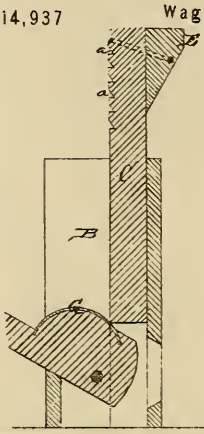
114,935 GEORGE H. FOX.
Screw-Taps.



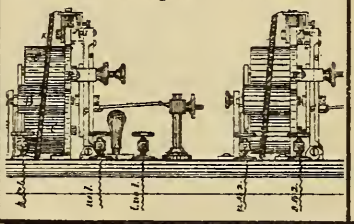
SAMUEL FRENCH. 114,936.
Railroad-Switches.



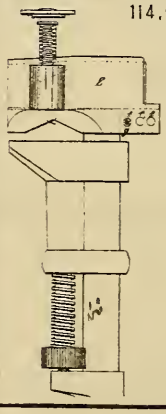
A. R. GILES.
114,937 Wagon-Jacks.



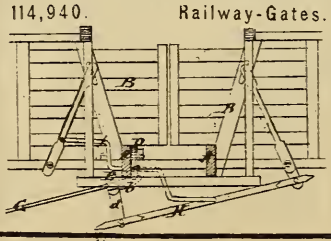
ELISHA GRAY.
114,938. Telegraph Repeaters.



114,939.
D. HARRIGAN.
Pipe-Cutters.



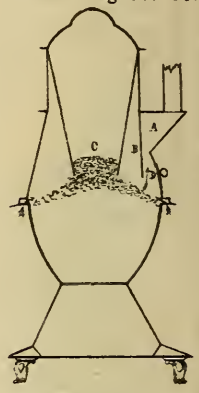
S. H. HEATWOLE
114,940. Railway-Gates.



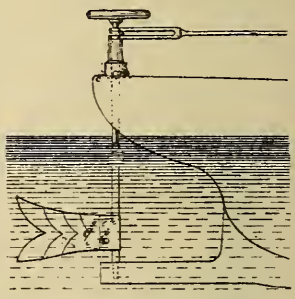
114,941. ALLEN HISEY.
IMPROVEMENT IN TANNING COMPOUNDS.

R. B. HUGUNIN
Sash-Holders
114,942.

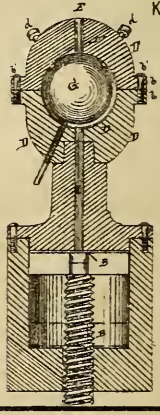
114,943. Z. HUNT.
Base-Burning Stoves.



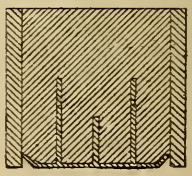
114,944. ROBERT HUNTER.
Flexible Propellers.



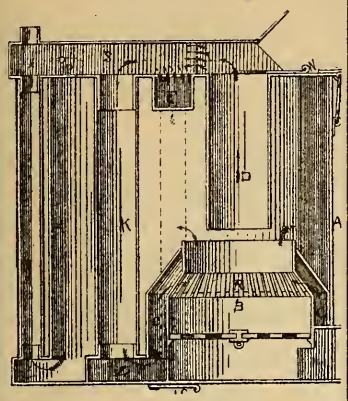
114,945 JOHN W. HYATT, Jr.
Knife-Handles.



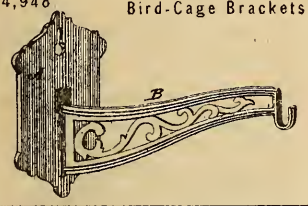
114,946. JAMES J. JOHNSTON.
Artificial Stone for Buildings



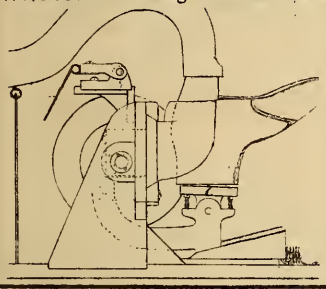
114,947. WILLIAM M. JONES.
Base-Burning Stoves



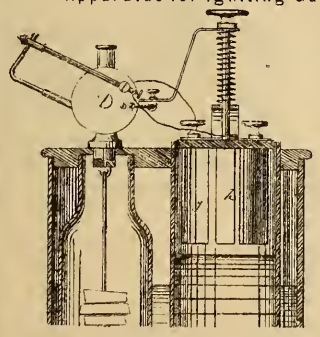
114,948 A. D. JUDD.
Bird-Cage Brackets.



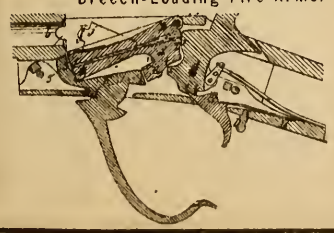
114,949. A. B. KEITH
Leveling Boot-Heel Treads.



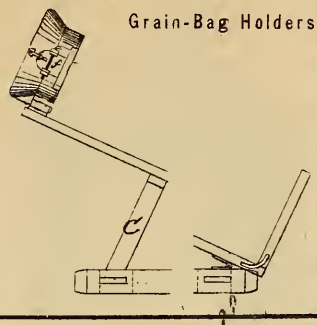
114,950. W. KLINKERFUES.
Apparatus for Igniting Gas



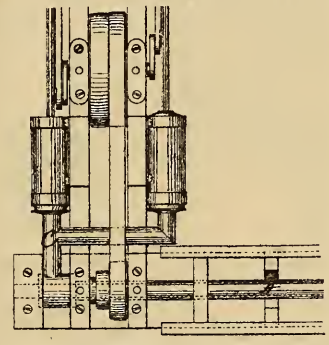
JAMES LEE. 114,951.
Breech-Loading Fire-Arms.



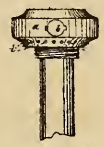
114,952. WILLIAM P. LELAND.
Grain-Bag Holders.



ROBERT LITTLE.
114,953. Boring-Machines.

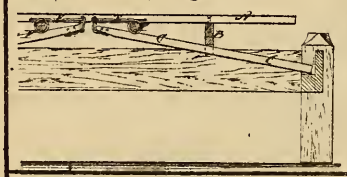


C. B. MANN & S. S. MANN.
114,954. Improvement in Lamps.



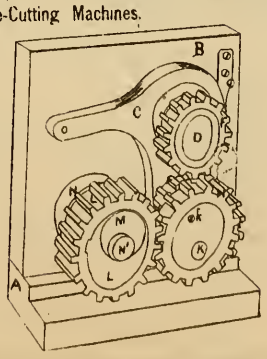
C. F. Manuel
D. McLeonard

114,955. Spring Bed-Bottoms



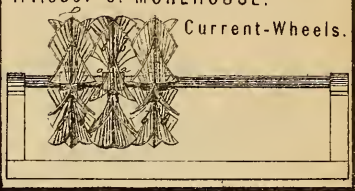
114,956. CALEB MARSHALL.
MANUFACTURE OF SHEET IRON AND REMOVING SCALE FROM IRON FOR COATING WITH OTHER METALS.

114,957 CHARLES E. MOORE.
File-Cutting Machines.

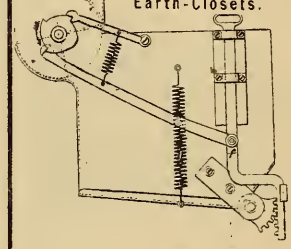


MORANGE & MORANGE.
114,958. Casting Car-Wheels.

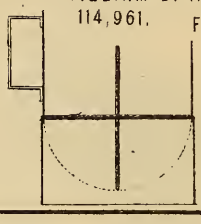
114,959. C. MOREHOUSE.
Current-Wheels.



114,960.
HENRY MOULE & JAMES BANNEHR.
Earth-Closets.



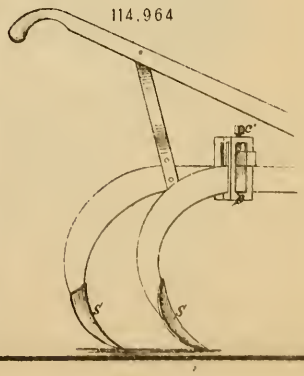
WILLIAM B. NICHOLS.
114,961. Flour-Sifters.



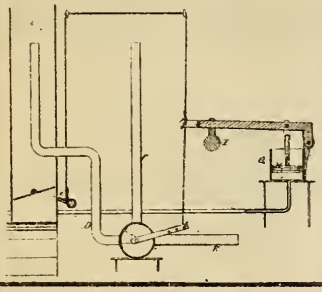
H. B. NICKERSON.
114,962. Files.

114,963. A. C. PAQUET.
Bank-Checks.

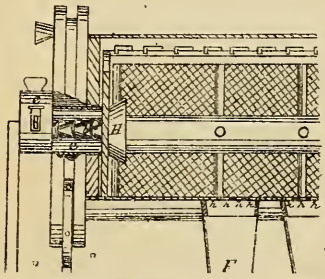
PARSONS & FINNEY
Cultivators and Shovel-Plows.
114,964



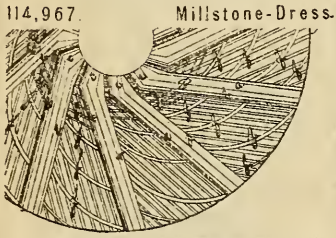
114,965. WILLIAM E. PEARSON.
Boiler-Furnace Draft-Regulators.



114,966. D. N. M. PEREGOY
Flour-Bolts.

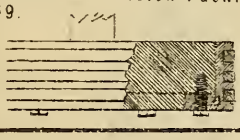


D. N. M. PEREGOY.
114,967. Millstone-Dress.

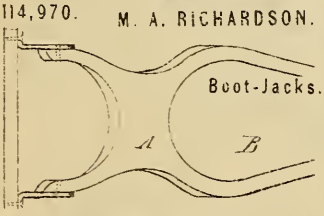


114,968, ISAAC REHN. COPYING COLORED AND DEFECTIVE DRAWINGS.

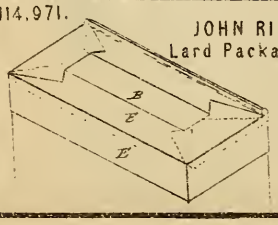
GEORGE H. REYNOLDS.
Pistons and Piston-Packings
114,969.



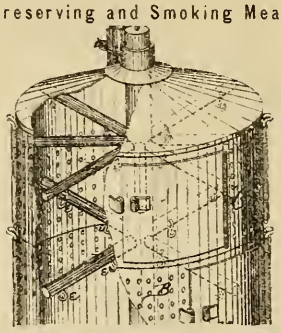
114,970. M. A. RICHARDSON.
Boot-Jacks.



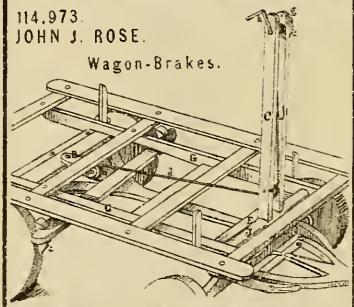
114,971. JOHN RING
Lard Packages.



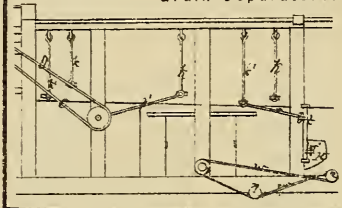
A. ROBERTSON. 114,972
Preserving and Smoking Meats.



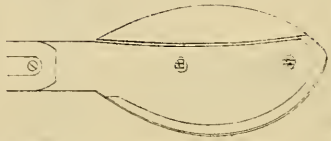
114,973. JOHN J. ROSE.
Wagon-Brakes.



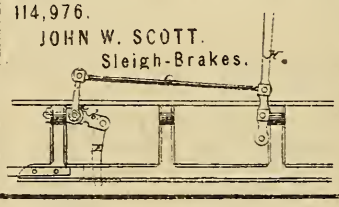
114,974 L. C. ROYER
Grain-Separators.



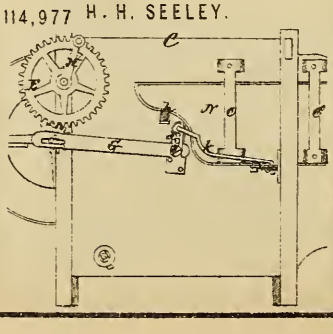
M. RUFE
114,975. Skinning-Knives



114,976. JOHN W. SCOTT.
Sleigh-Brakes.

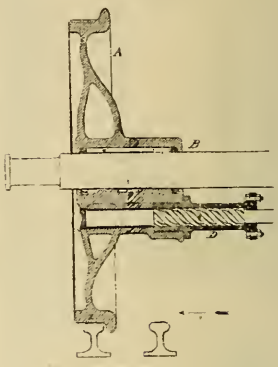


Fanning-Mills.
114,977 H. H. SEELEY.

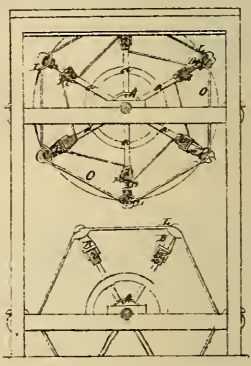


114,978. JOHN CARRINGTON SELLARS.
METAL-FOUNDERS' BLACKING.

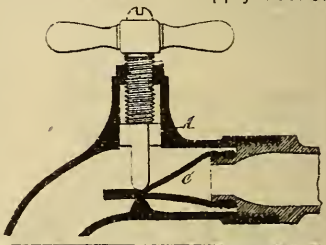
GEORGE SEWELL. 114,979.
Self-Adjusting Car-Wheel Gears.



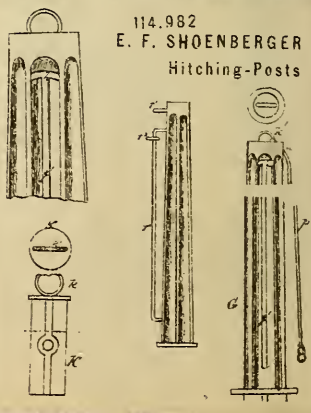
DAVID SHAMP.
114,980. Flour-Bolting Reels.



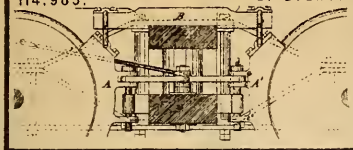
114,981. E. F. SHOENBERGER.
Faucets or Supply-Cocks.



114,982
E. F. SHOENBERGER
Hitching-Posts

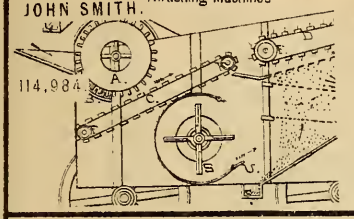


114,983. C. A. SMITH. Car-Brakes



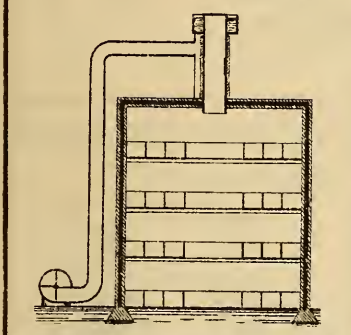
JOHN SMITH. Thrashing-Machines

114,984.

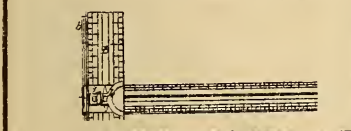


D. E. SOMES & F. C. SOMES. Milk Cooling

114,985.

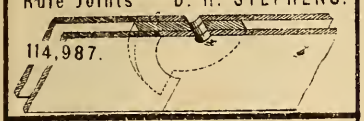


114,986. K. STEEN. Adjustable Squares.



Rule Joints D. H. STEPHENS.

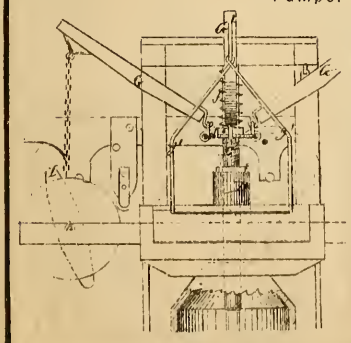
114,987.



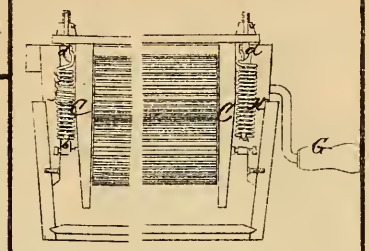
Draft-Equalizers. WILLIAM STEVENSON.

114,988.

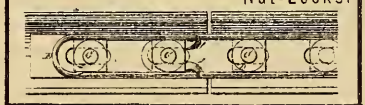
114,989. Z. T. SWEET. Pumps.



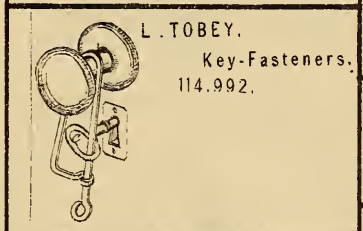
JOHN TABER. 114,990. Washing and Wringing-Machines.



114,991. SAMUEL I. THOMPSON. Nut-Locks.

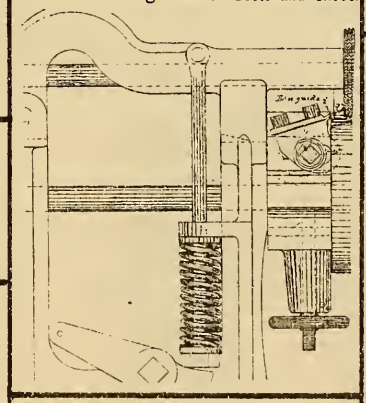


L. TOBEY. Key-Fasteners. 114,992.

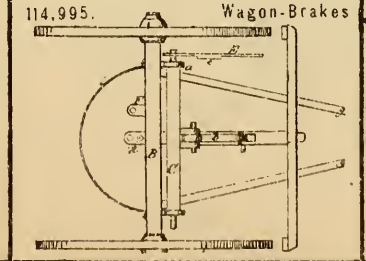


WILLIAM TYLER. 114,993. Dough-Kneaders.

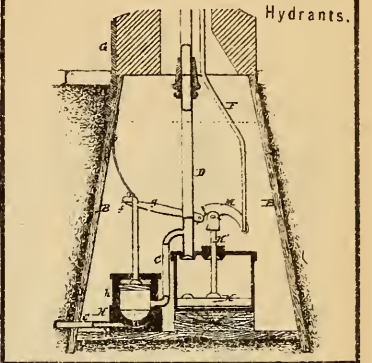
HENRY S. VROOMAN. 114,994. Skiving Soles of Boots and Shoes.



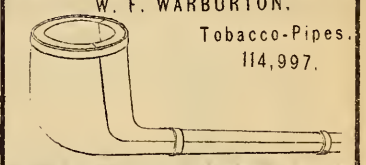
HENRY WALMER. 114,995. Wagon-Brakes



114,996 JAMES WALSH. Hydrants.

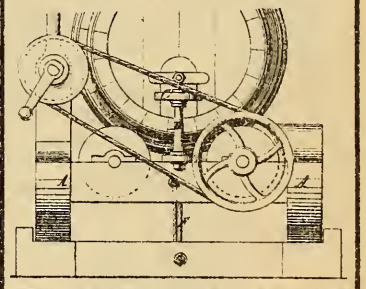


W. F. WARBURTON. Tobacco-Pipes. 114,997.

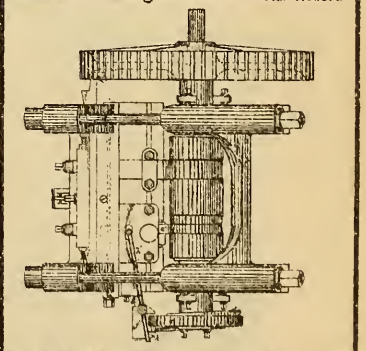


114,998 M. WARNE. Ice-Creepers.

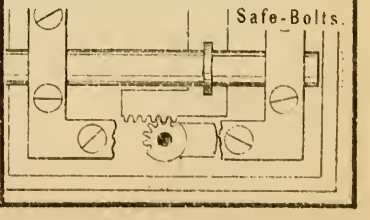
114,999. A. WARTH. Machines for Pitching Casks



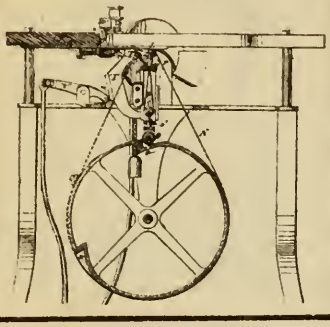
H. WATERS. 115,000. Lathes for Cutting Grooves in Metal Rollers



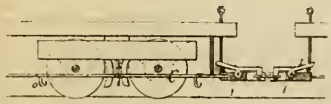
115,001. JACOB WEIMAR. Safe-Bolts.



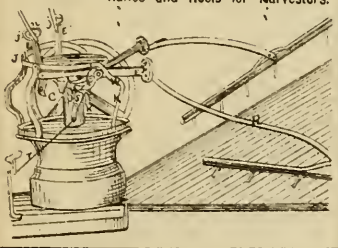
115,002
JOHN WETTSTEIN.
Machines for Making Cigars



F. E. WHITESIDE. 115,003.
Railway-Alarms for Trucks.

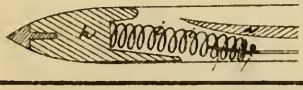


J. B WHITING.
115,004. Rakes and Reels for Harvesters.

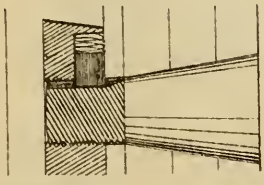


115,005,
JAMES M. WILLCOX.
PAPER FOR BANK-NOTES, BONDS,

115,006 DANIEL WRIGHT.
Shuttles for Looms.

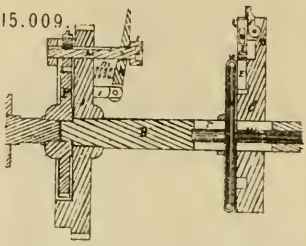


115,007.
CHARLES O. YALE.
Self-Locking Screw-Bolts

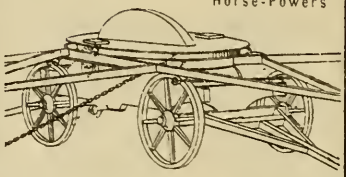


115,008. G. M. YOUNG.
Hammers.

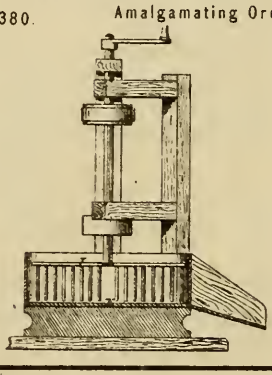
O. P. BRIGGS & L. W. BRIGGS.
Machines for Cutting Screw-Threads
115,009.



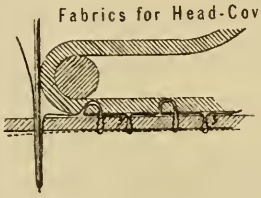
4,379 H. ALDRIDGE
Horse-Powers



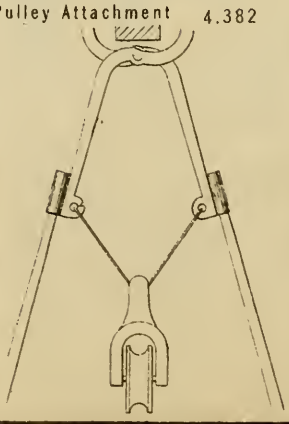
THOMAS BATES.
4,380. Amalgamating Ores.



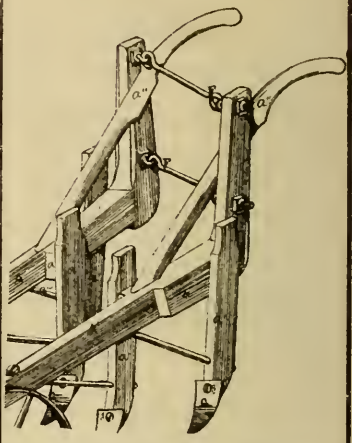
CHARLES F. BOSWORTH. 4,381
Fabrics for Head-Covering.



GEORGE W. GREGORY.
Pulley Attachment 4,382

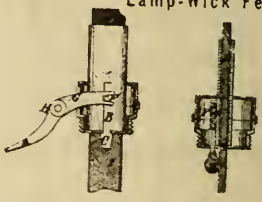


4,383. THOMAS McQUISTON.
Cultivators.

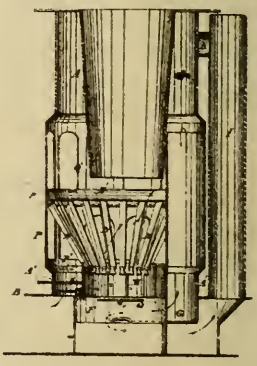


4,384. HENRY H. BEACH.
PROCESSES OF SEASONING LUMBER.

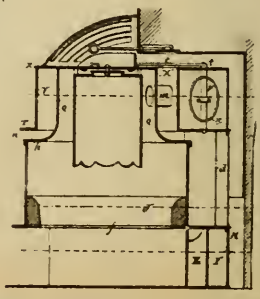
4,385 GEORGE CADE.
Lamp-Wick Feeders.



WILLIAM J. KEEP.
4,386 Base-Burning Stoves.



Base-Burning Fireplace-Heaters.
DAVID STUART & LEWIS BRIDGE.
4,387



ILLUSTRATIONS OF PATENTS

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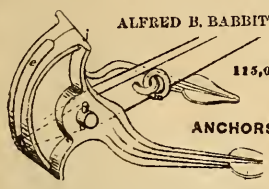
MAY 23, 1871.

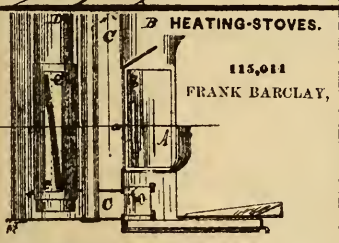
ADAMS AND MAYHEW,
FOLDING SETTEES.
115,010

ALFRED B. BABBITT,
115,011
ANCHORS.



115,012 BENJAMIN F. BAER,
DOOR-SECURERS.

HEATING-STOVES.
115,014
FRANK BARCLAY,



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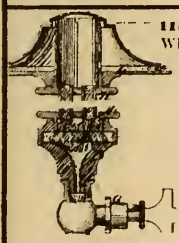
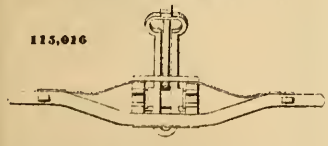
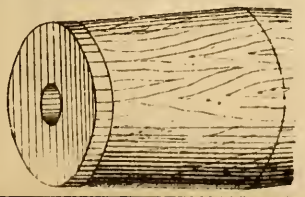
WILLIAM E. BARTLETT,
VAPOR-BURNERS.



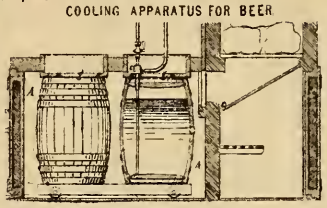
WILLIAM BEERS,
WAGON-TONGUE SUPPORTS.
115,016



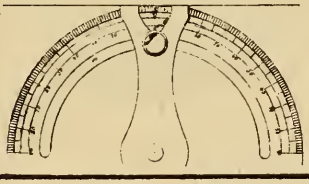
115,017 AUGUST BENNINGHOFEN,
SEASONING WAGON-HUBS.

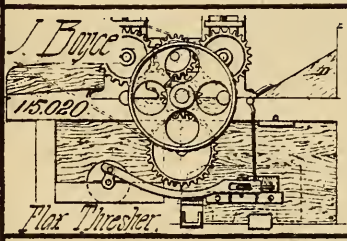


115,018 BERGNER AND ZEISSE.
COOLING APPARATUS FOR BEER

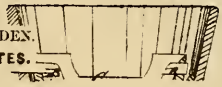


115,019 EDWARD BOSTOCK,
ADJUSTABLE RULERS.

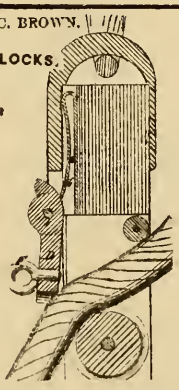




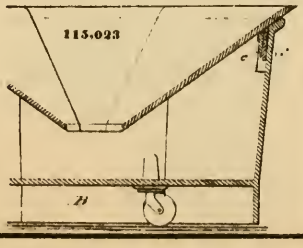
115,021
PARDON BOYDEN.
STOVE-GRATES.



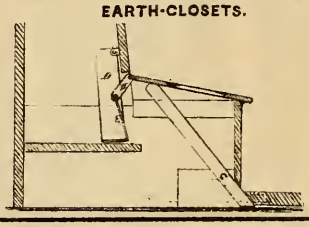
GEORGE C. BROWN.
PULLEY-BLOCKS.
115,022



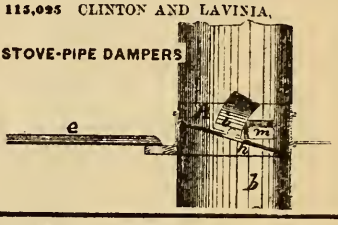
SPITTOONS. SAMUEL G. CABELL,
115,023



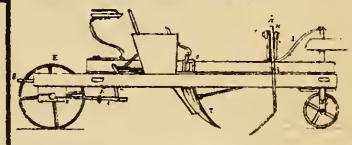
115,024 ROBERT ALEX CANNELL.
EARTH-CLOSETS.



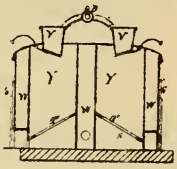
115,025 CLINTON AND LAVINIA,
STOVE-PIPE DAMPERS



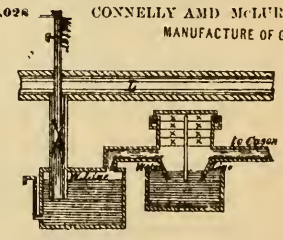
115,026 ROBERT J. COLVIN,
HARROW, ROLLER, AND SEED-PLANTER.



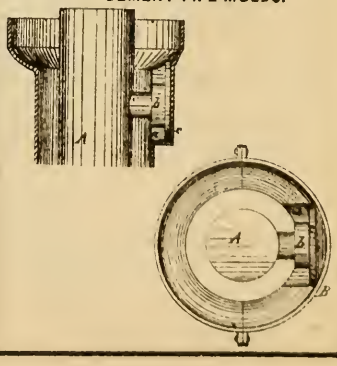
115,027 JOSEPH H. CONNELLY
HEATING AND LIGHTING LOCOMOTIVES



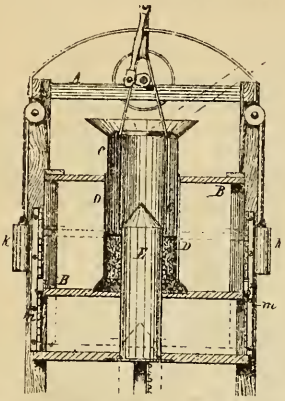
115,028 CONNELLY AMD McLURE.
MANUFACTURE OF GAS



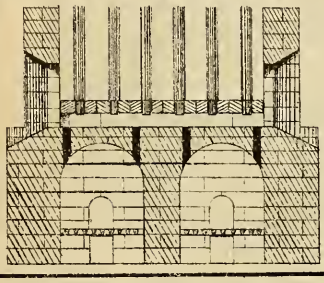
115,029 DAVID COPELAND,
CEMENT-PIPE MOLDS.



115,030 DAVID COPELAND,
MOLDING DRAIN AND SEWER PIPES.

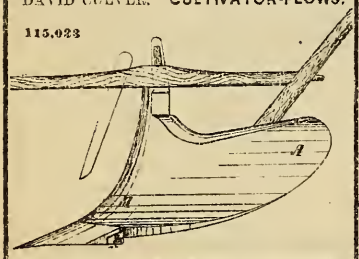


115,031 FRANCIS W. CROSBY,
ROASTING METALLIC ORES.

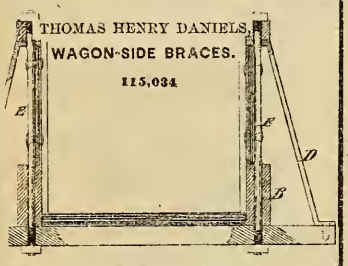


115,032 CHARLES P. CROSSMAN,
MEDICINES FOR COUGHS, COLDS,

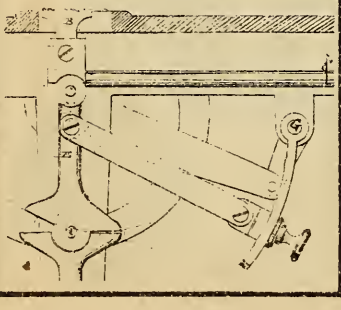
DAVID CULVER. CULTIVATOR-PLOWS.
115,033



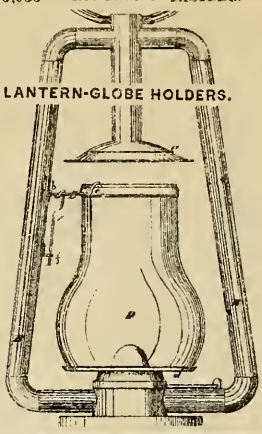
THOMAS HENRY DANIELS,
WAGON-SIDE BRACES.
115,034



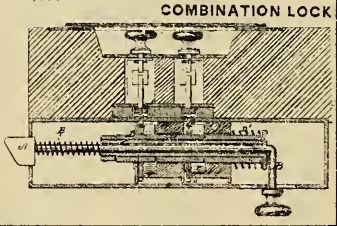
115,036 DIEHL AND OEHRING.
FEEDING MECHANISMS

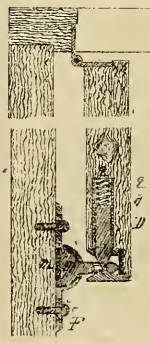


115,035 DENNIS AND KISTLER.
LANTERN-GLOBE HOLDERS.



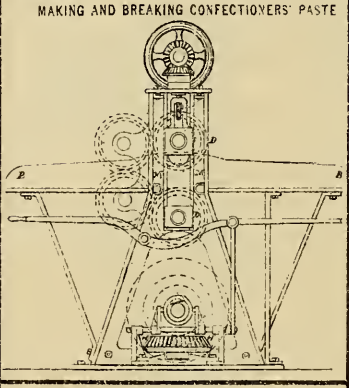
115,037 JOHN W. H. DOUBLER,
COMBINATION LOCK.



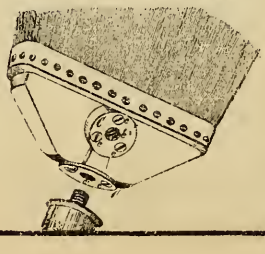


115,038
DOYLE AND BEHEL,
DOOR-STOPS.

115,039 ROBERT DUFF,
MAKING AND BREAKING CONFECTIONERS' PASTE

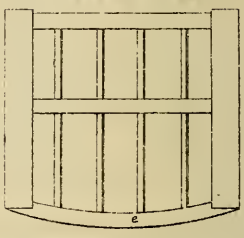


115,040 ELIJAH T. DUNAWAY,
HANDLE-FASTENINGS FOR BROOMS

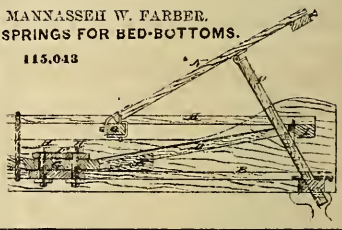


115,041 THOMAS DUNCAN INKSTANDS.

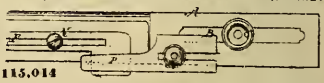
115,042 ALBERT E. EATON,
REVERSIBLE CRIBS.



MANNASSEH W. FARBER,
SPRINGS FOR BED-BOTTOMS.
115,043



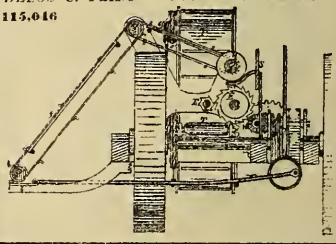
THOMAS MANCHESTER FARRAND,
TUCK-LAYING DEVICES FOR SEWING-MACHINES.



115,044

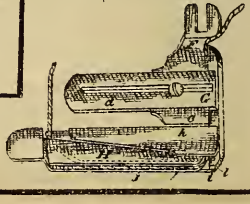
115,045 JOHN FARRELL, LAMP-WICKS.

DELOS C. FLINT CORN-HARVESTERS.
115,046

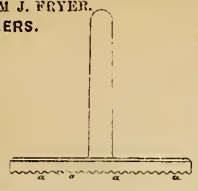


115,047
CREVICE-SEARCHERS AND CLEANERS
WILLIAM FORKER.

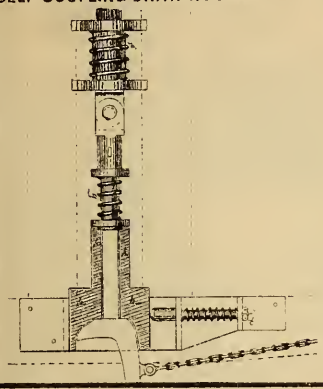
115,048
FOWLER AND PETTINGELL
CORDING ATTACHMENTS



115,049 WILLIAM J. FRYER.
MOLDERS' SLICKERS.

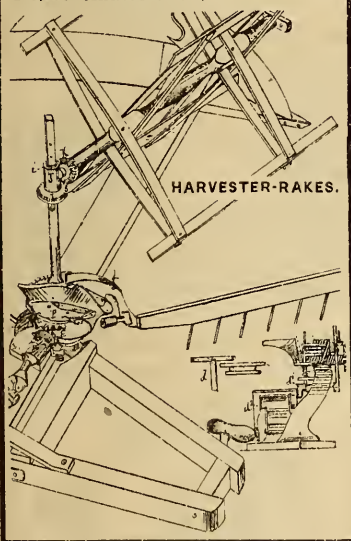


115,050 PERRY G. GARDINER.
SELF-COUPLING DRAW-HOOKS



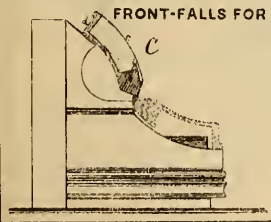
115,051, J. J. GROSHEINZ.
GLUCOSE SIRUPS AND SUGARS.

115,052 JAMES HARRIS.

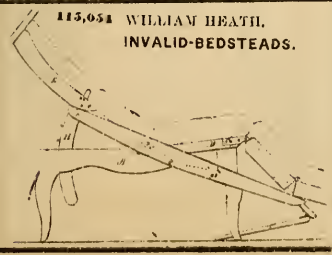


HARVESTER-RAKES.

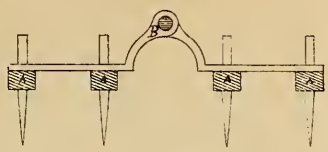
115,053 AZARIA HORACE HASTINGS,
FRONT-FALLS FOR PIANOS.



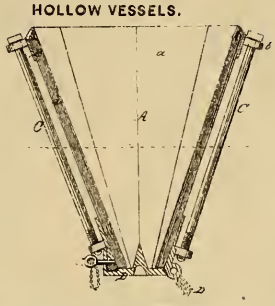
115,054 WILLIAM HEATH.
INVALID-BEDSTEADS.



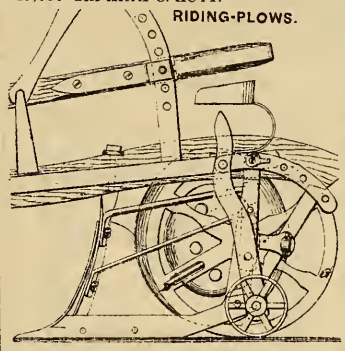
115,055 GEORGE HILL.
CORN-HARROWS.



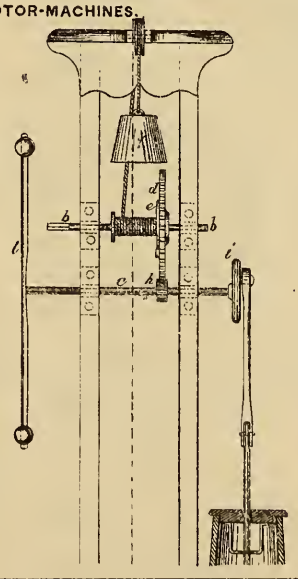
115,056 WILLIAM F. HOLSKE.
HOLLOW VESSELS.



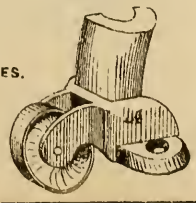
115,057 BENAIAH C. HOYT.
RIDING-PLOWS.



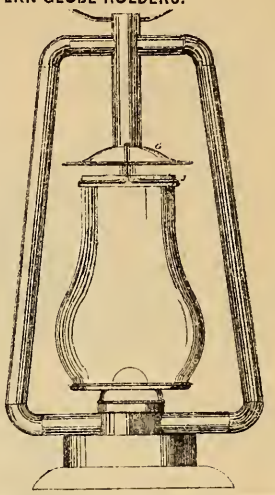
115,058 ISAAC G. HUBBARD.
MOTOR-MACHINES.



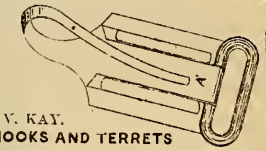
115,060
HARRY JONES.
CASTERS FOR
SEWING-MACHINES.



115,059 JOHN H. IRWIN
LANTERN-GLOBE HOLDERS.



115,061

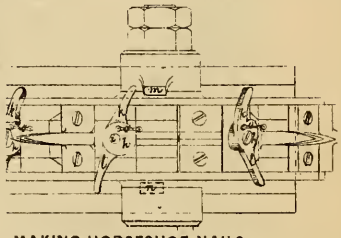


WILLIAM V. KAY.
CHECK-HOOKS AND TERRETS

115,062

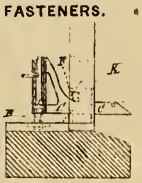
WILLIAM V. KAY.
HARNESS PAD-TREES.

115,064 EDWARD WATSON KELLEY.

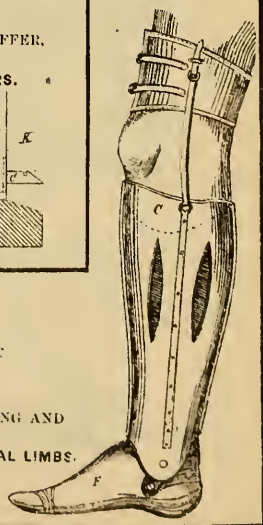


MAKING HORSESHOE-NAILS.

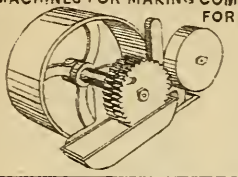
115,063
PETER KEFFER.
SHUTTER-
FASTENERS.



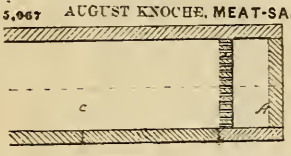
115,065
KEPPERLING AND
KREITER
ARTIFICIAL LIMBS.



115,066 HOMER A. KING.
MACHINES FOR MAKING COMB-GUIDES FOR BEE-HIVES.

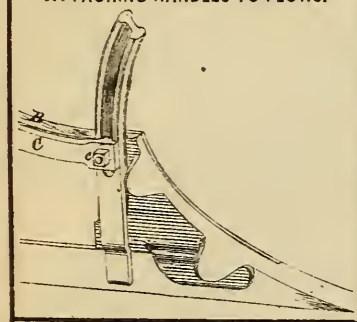


115,067 AUGUST KNOCHE, MEAT-SAFES.



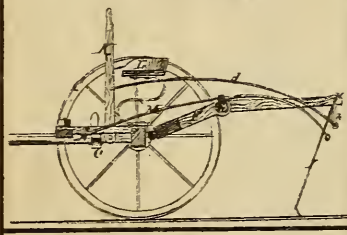
115,068
GEORGE W. LANE,
SHARPENING CALKS.

115,069 JOHN L. LAUGHLIN.
ATTACHING HANDLES TO PLOWS.

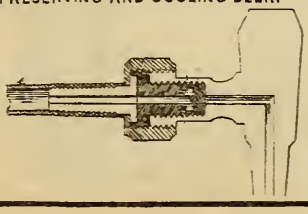


115,070 HENRY LAURENCE.
FILE-HOLDERS AND POLISHERS.

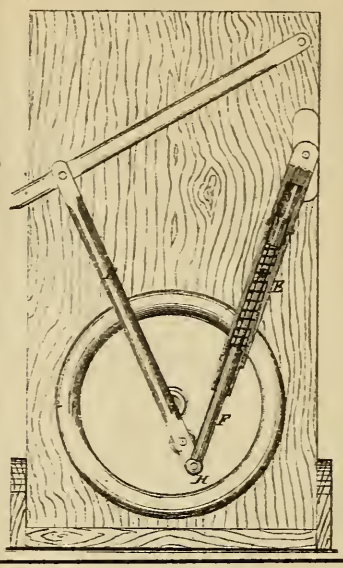
115,071 J. GEORGE LOCKWOOD.
HORSE HAY-RAKES.



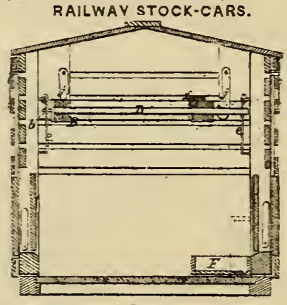
115,072 JACOB LORENZ.
PRESERVING AND COOLING BEER.



115,073 HARVEY LULL.
AUXILIARY SPRINGS FOR TREADLES.

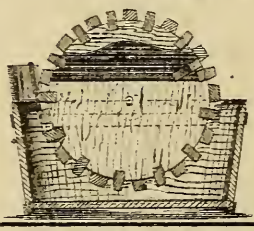


115,074 WILLIAM M. LYON,
RAILWAY STOCK-CARS.

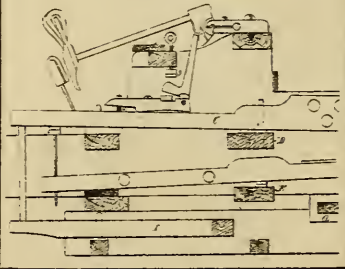


115,075 FRANK MARQUARD,
COMPOSITION BOOT AND SHOE HEELS.

115,076 MARR AND MAUGHLIN.
WASHING-MACHINES.

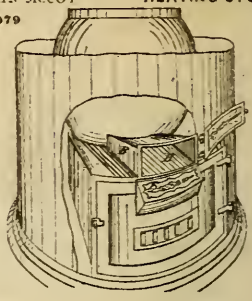


115,077 MATT AND GRUETER.
PIANO ACTIONS.

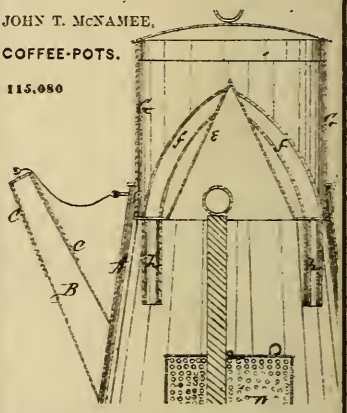


115,078 ROBERT W. McCLELLAND,
WHIFFLETREES.

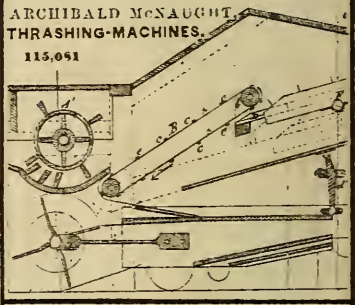
JOHN McCOY HEATING-STOVES.
115,079



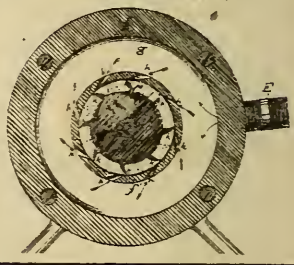
JOHN T. McNAMEE,
COFFEE-POTS.
115,080



ARCHIBALD McNAUGHT,
THRASHING-MACHINES.
115,081

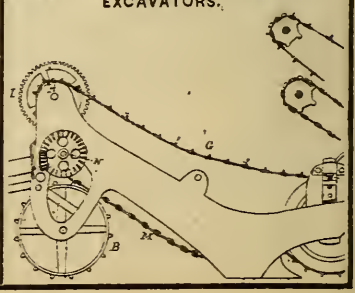


115,082 ALANSON H. MERRIMAN.
WATER-WHEELS.



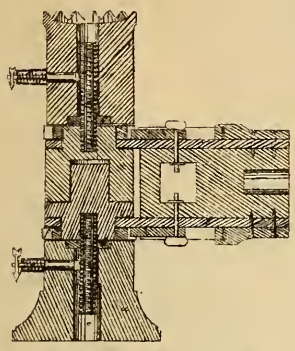
115,083 FRANKLIN S. MERRITT,
MANUFACTURE OF JAPANNED LEATHER

115,084 MILLER AND CLARINGDON
EXCAVATORS.

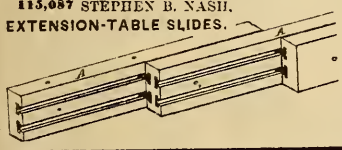


115,085 HENRY C. MILLIGAN.
SPOONS.

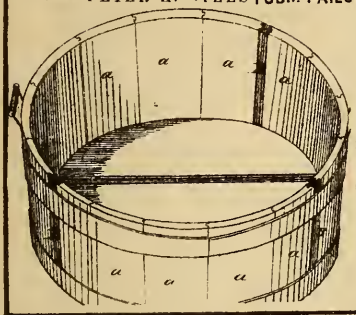
115,086 HACKLEY T. MORRISON.
LIFTING-JACKS.



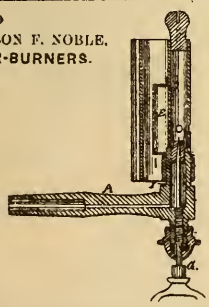
115,087 STEPHEN B. NASH.
EXTENSION-TABLE SLIDES.



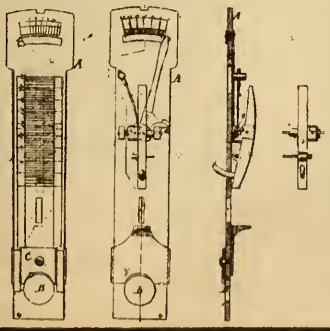
115,088 PETER H. NILES TUBS. PAILS



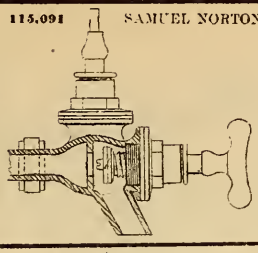
115,089
ALANSON F. NOBLE.
VAPOR-BURNERS.



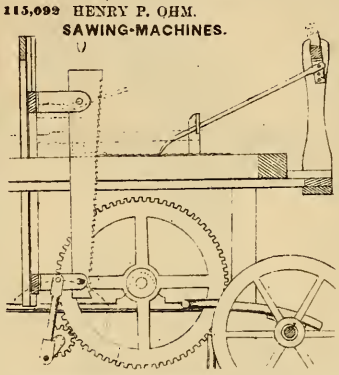
115,090 THEODORE NOEL.
WATCH-MAKERS' GAGES.



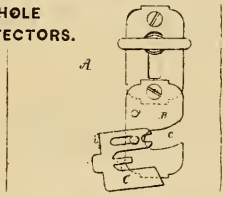
115,091 SAMUEL NORTON, COCKS.



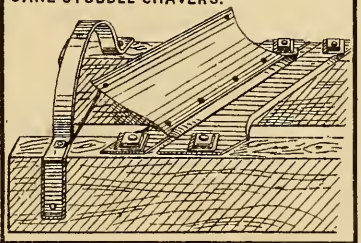
115,092 HENRY P. OHM.
SAWING-MACHINES.



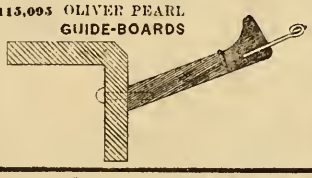
115,093 JOHN HANSON PARKER.
KEY-HOLE
PROTECTORS.



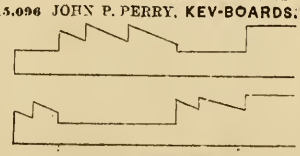
115,094 FELIX F. PATOUT.
CANE-STUBBLE SHAVERS.

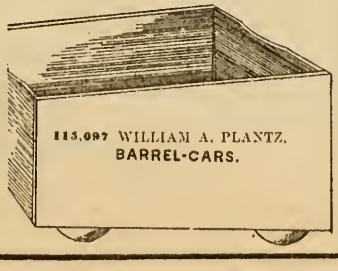


115,095 OLIVER PEARL
GUIDE-BOARDS



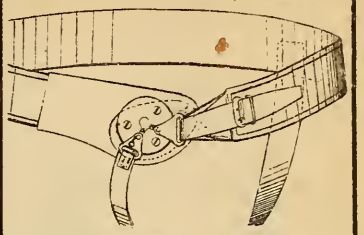
115,096 JOHN P. PERRY. KEY-BOARDS.



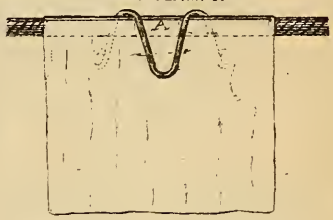


115,097 WILLIAM A. PLANTZ.
BARREL-CARS.

115,098 WILLIAM POMEROY. TRUSSES.

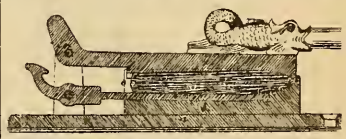


115,099 CHRISTIAN L. POORMAN,
CLOTHES-CLAMPS.

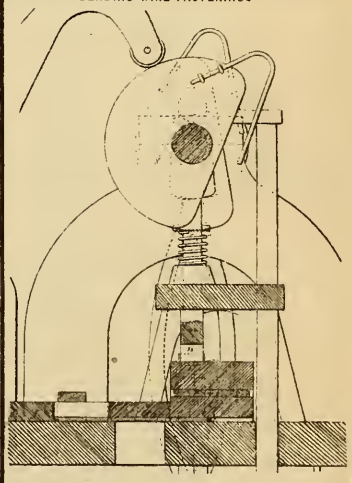


115,100 FRANCIS PEYRE PORCHER.
PREPARATION OF MATERIALS FOR
TANNING.

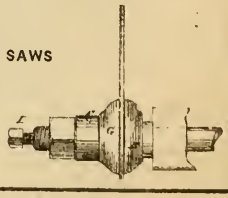
115,101 JOHN PRENTICE. CIGAR-MOLDS.



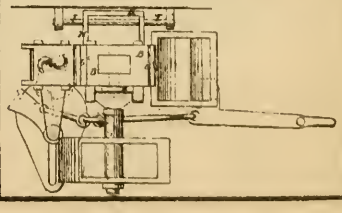
115,102 HENRY W. PUTNAM.
BENDING WIRE FASTENINGS



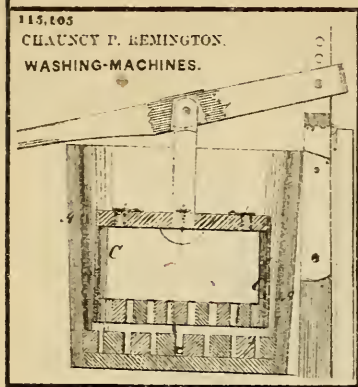
115,103
JACOB RAND.
ARBORS FOR SAWS



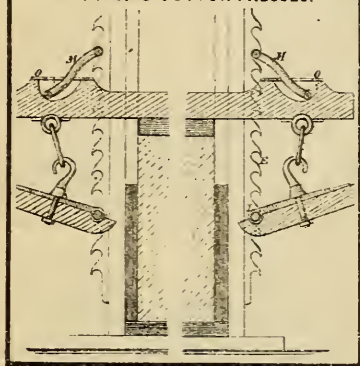
115,104 THOMAS RAY. CAR-COUPLERS



115,105 CHAUNCY P. REMINGTON. WASHING-MACHINES.



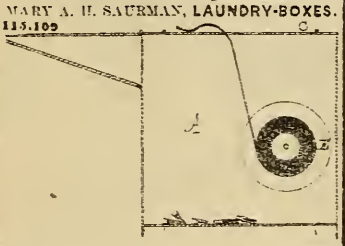
115,106 EUGENE ROCK. HAY AND COTTON PRESSES.



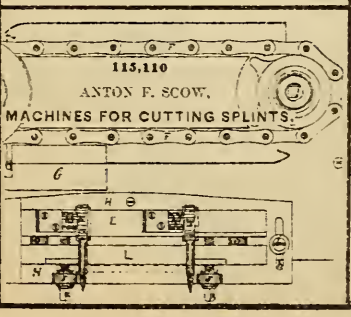
115,107 ALEXANDER Y. ROZENBURY. COMPOSITIONS FOR STUPEFYING BEES.

115,108 ALBERT J. RUSSELL. INVALID-BEDSTEADS.

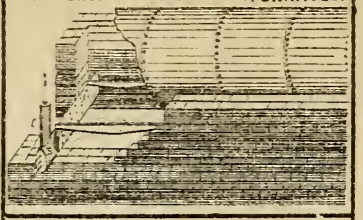
MARY A. H. SAURMAN, LAUNDRY-BOXES. 115,109



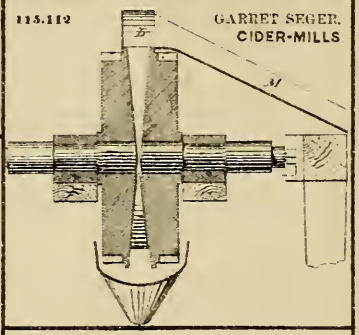
115,110 ANTON F. SCOW. MACHINES FOR CUTTING SPLINTS.

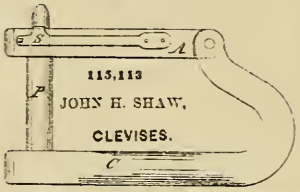


115,111 TIMOTHY P. SCRIPTER. FURNACES.



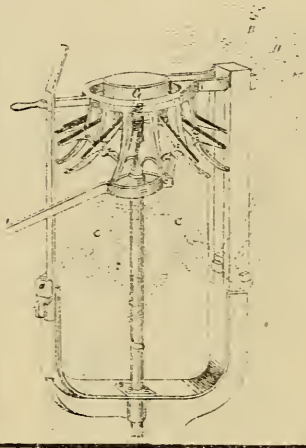
115,112 GARRET SEGER. CIDER-MILLS



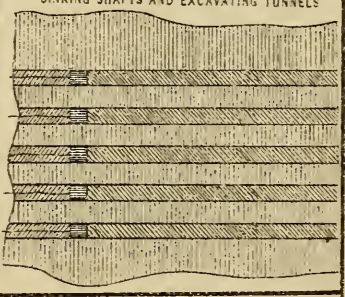


115,113 JOHN H. SHAW. CLEVISES.

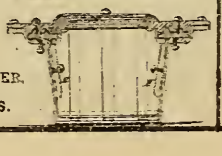
115,114 JULIUS SHELDON. STRETCHING THE BRIMS OF HATS.



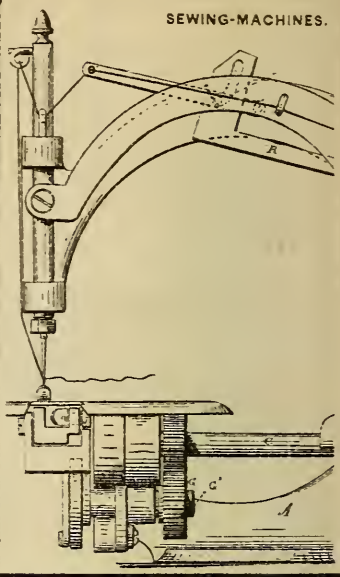
115,115 SHELLEY, AND BULLOCK. SINKING SHAFTS AND EXCAVATING TUNNELS

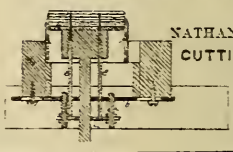


115,116 ISAAC C. SHULER. BURIAL-CASES.



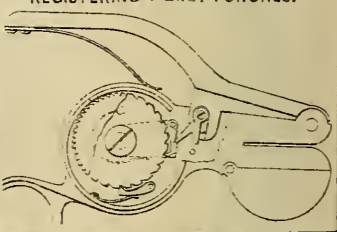
115,117 WILLIAM SIDENBERG. SEWING-MACHINES.



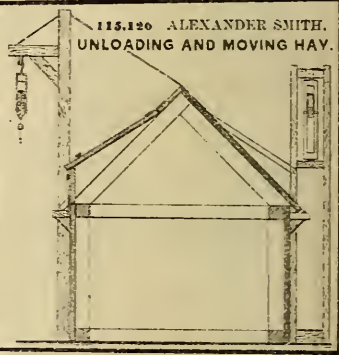


115,118 NATHAN J. SIMONDS. CUTTING-PRESSES.

115,119 JAMES H. SMALL. REGISTERING TICKET-PUNCHES.

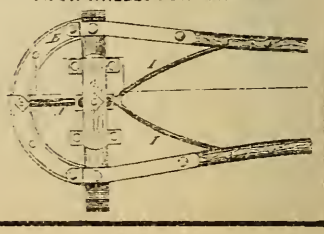


115,120 ALEXANDER SMITH. UNLOADING AND MOVING HAY.

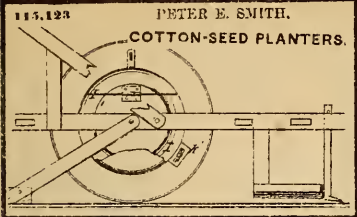


HENRY M. SMITH, MEDICINE-CASES. 115,121

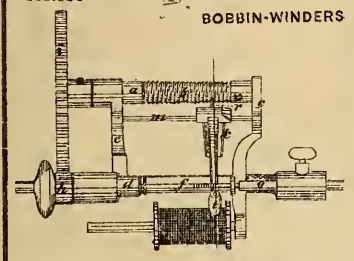
115,122 JAMES P. SMITH. FIFTH-WHEELS FOR VEHICLES.



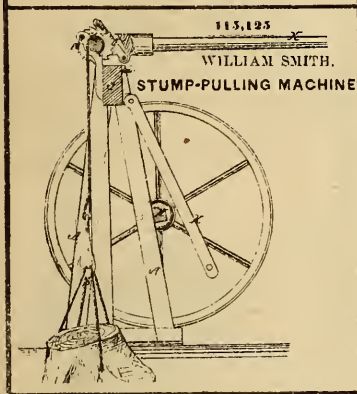
115,123 PETER E. SMITH.
COTTON-SEED PLANTERS.



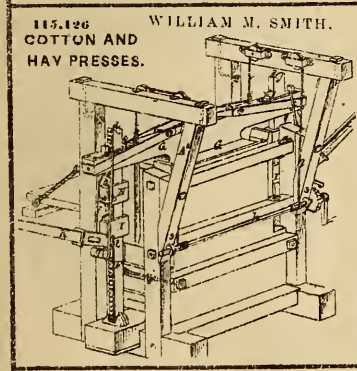
115,124 ROBERT H. SMITH,
BOBBIN-WINDERS



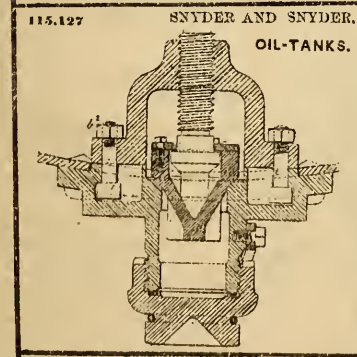
115,125
WILLIAM SMITH.
STUMP-PULLING MACHINE



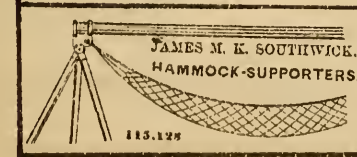
115,126 WILLIAM M. SMITH.
COTTON AND HAY PRESSES.



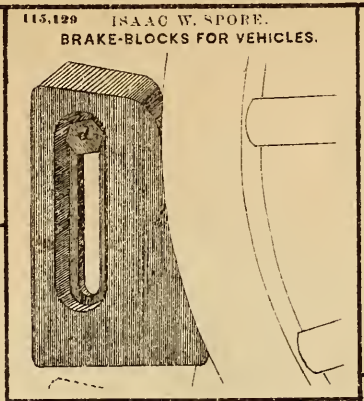
115,127 SNYDER AND SNYDER.
OIL-TANKS.



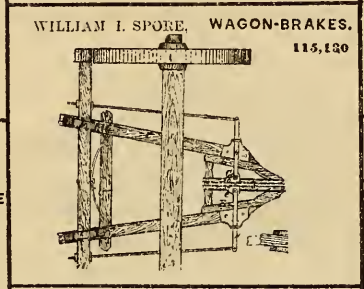
JAMES M. K. SOUTHWICK.
HAMMOCK-SUPPORTERS.
115,128



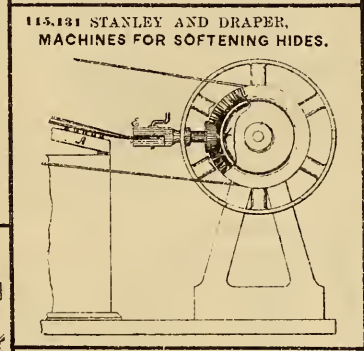
115,129 ISAAC W. SPORE.
BRAKE-BLOCKS FOR VEHICLES.



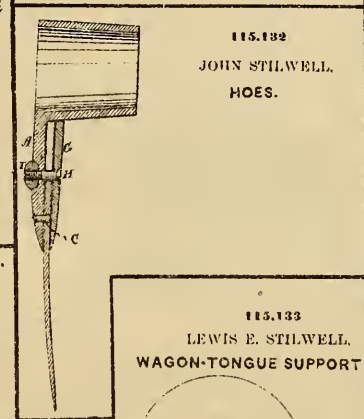
WILLIAM I. SPORE. WAGON-BRAKES.
115,130



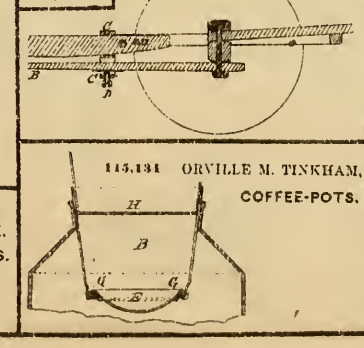
115,131 STANLEY AND DRAPER,
MACHINES FOR SOFTENING HIDES.



115,132
JOHN STILWELL.
HOES.

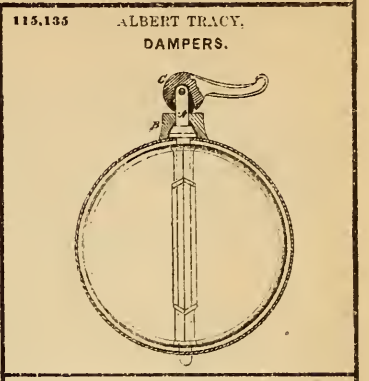


115,133
LEWIS E. STILWELL.
WAGON-TONGUE SUPPORT

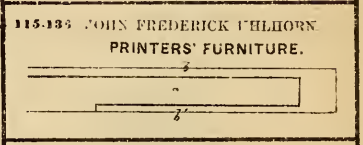


115,134 ORVILLE M. TINKHAM,
COFFEE-POTS.

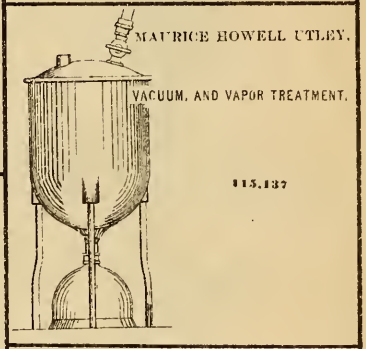
115,135 ALBERT TRACY,
DAMPERS.



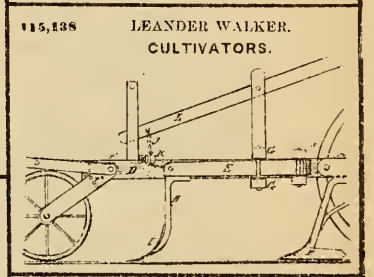
115,136 JOHN FREDERICK UHLHORN
PRINTERS' FURNITURE.



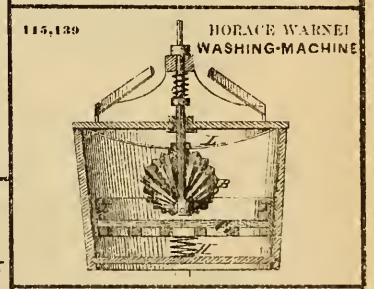
MAURICE HOWELL UTLEY.
VACUUM, AND VAPOR TREATMENT.
115,137



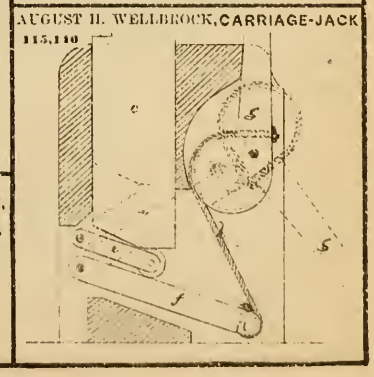
115,138 LEANDER WALKER.
CULTIVATORS.



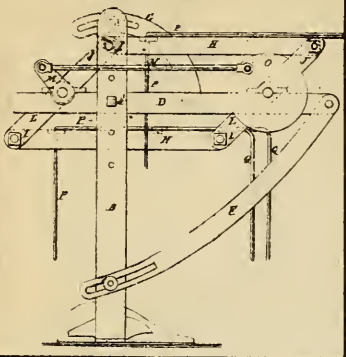
115,139 HORACE WARNER
WASHING-MACHINE



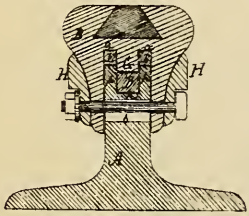
AUGUST H. WELLBROCK, CARRIAGE-JACK
115,140



115,141 GEORGE H. WELLER.
HARVESTER-RAKES.

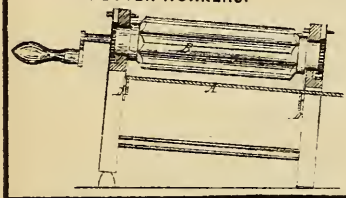


115,142 EDWARD WILLIAMS.
RAILROAD RAILS.

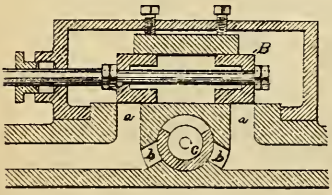


115,143 WILLIAM C. WINFIELD.
MINERS' LAMPS.

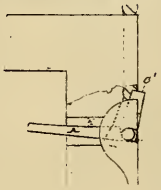
115,144 PHILANDER G. WOODARD.
BUTTER-WORKERS.



115,145 JOHN C. WOODHEAD.
STEAM-ENGINES.

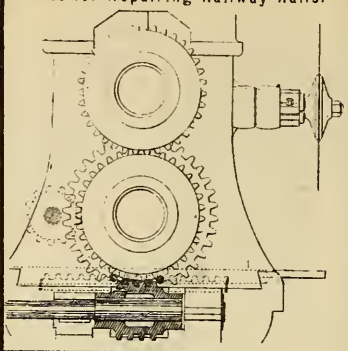


115,147
GILBERT L. BAILEY.
SASH-FASTENERS.

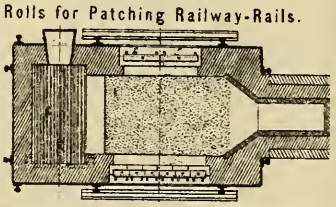


115,146
CHARLES EDWIN BACON AND
WILLIAM JONES KENT,
NAME-PLATES FOR ORGAN-STOPS.

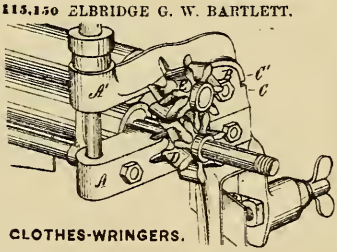
HUGH BAINES. 115,148
Plants for Repairing Railway-Rails.



HUGH BAINES. 115,149.
Rolls for Patching Railway-Rails.

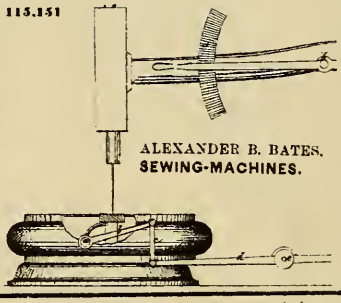


115,150 ELBRIDGE G. W. BARTLETT.



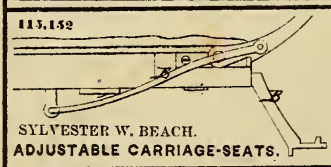
CLOTHES-WRINGERS.

115,151



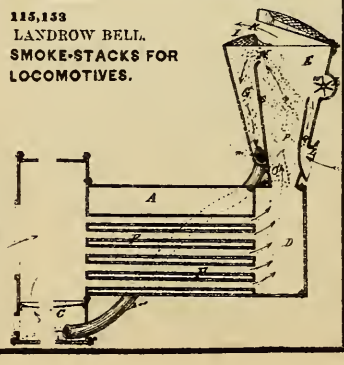
ALEXANDER B. BATES.
SEWING-MACHINES.

115,152

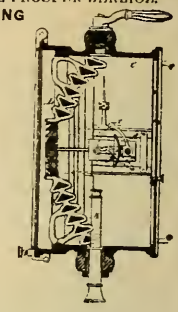


SYLVESTER W. BEACH.
ADJUSTABLE CARRIAGE-SEATS.

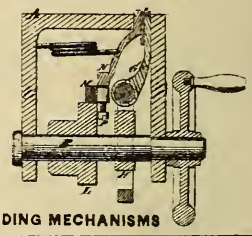
115,153
LANDROW BELL.
SMOKE-STACKS FOR
LOCOMOTIVES.



115,154 AUGUSTE PROSPER BERLIOZ.
ELECTRIC LIGHTING
APPARATUS.

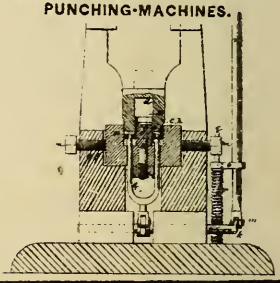


115,155 CHARLES BEUTTEL.

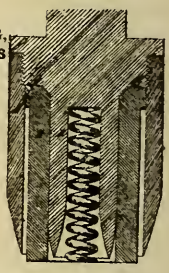


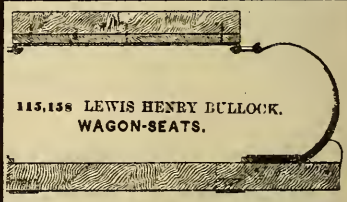
FEEDING MECHANISMS

115,156 BROWN, AND LONG.
PUNCHING-MACHINES.



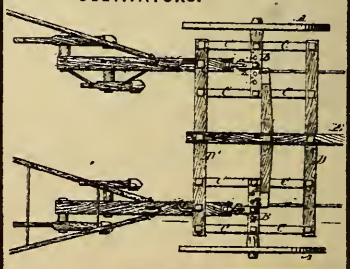
115,157
BROWN, AND LONG,
CUTTING WASHERS
FROM LEATHER.



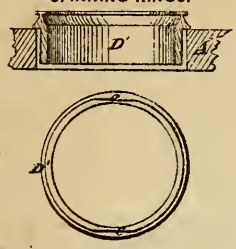


115,158 LEWIS HENRY BULLOCK.
WAGON-SEATS.

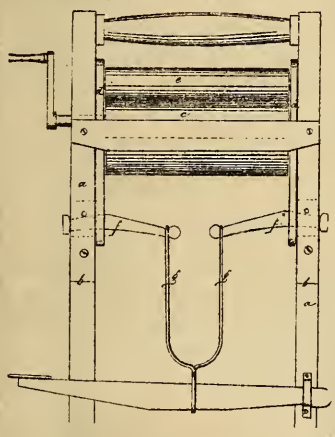
115,159 THEOPHILUS F. CAPP.
CULTIVATORS.



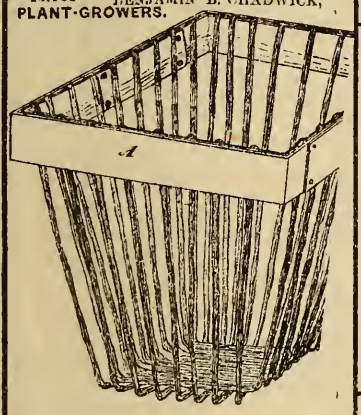
115,160 WILLIAM T. CARROLL.
SPINNING-RINGS.



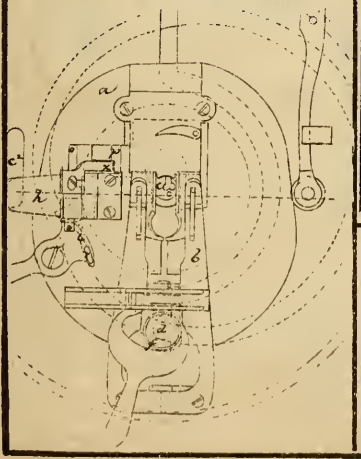
115,161 CYRUS E. CARTER.
CLOTHES-WRINGERS.



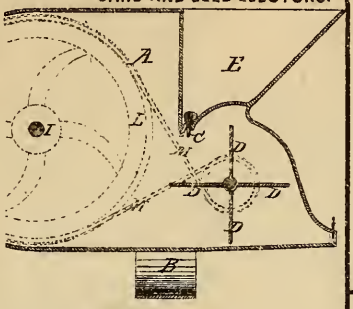
115,162 BENJAMIN B. CHADWICK,
PLANT-GROWERS.



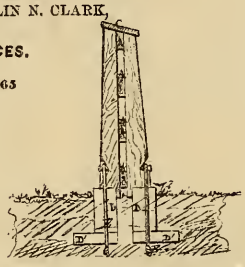
115,163 WILLIAM CHICKEN.
SEWING-MACHINES



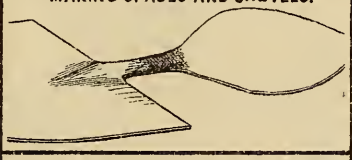
115,164 MARTIN CHRISTIANSEN.
SAND AND SEED EJECTORS.



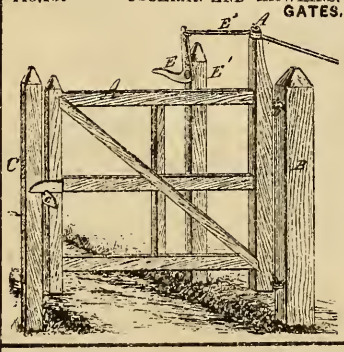
LOCKLIN N. CLARK,
FENCES.
115,165



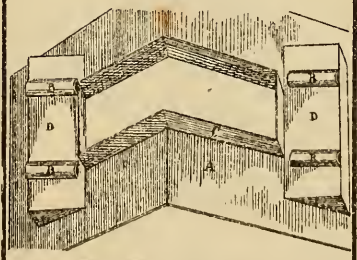
115,166 LEVI DEWES CLIFT.
MAKING SPADES AND SHOVELS.



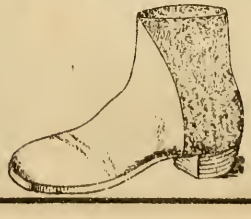
115,167 COCHRAN AND HAWKINS.
GATES.



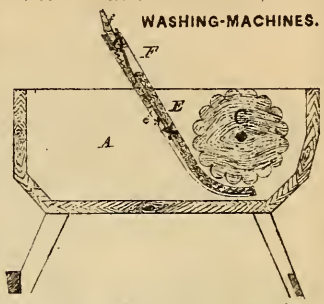
115,168 JOSEPH H. CONGDON.
CHIMNEY-COLLARS.



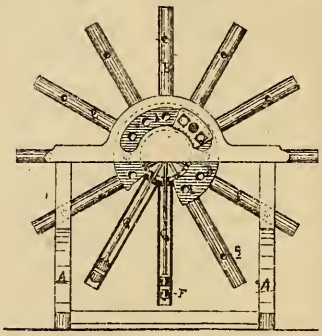
115,169 ELISHA S. CONVERSE, SHOES.



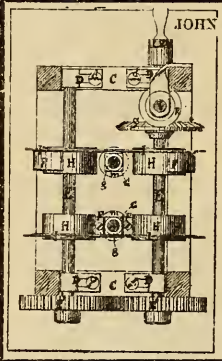
115,170 FERDINAND L. COPPS,
WASHING-MACHINES.



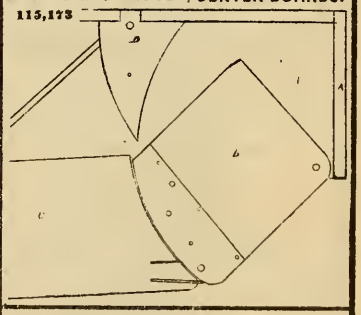
115,171 JAMES COX. ROTARY ENGINES.



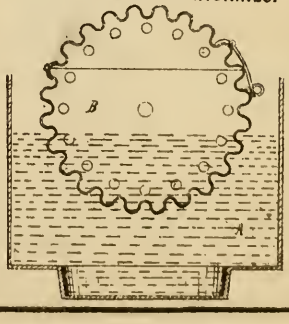
JOHN M. CRAWFORD,
STAMP-MILLS.
115,172



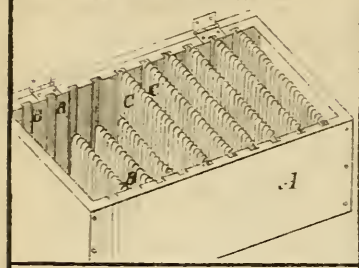
ALONZO G. CROSSMAN, CENTER-BOARDS.
115,173



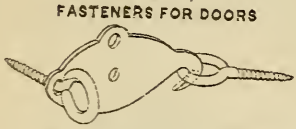
115,174 JAMES CURTIS.
BOILER WASHING-MACHINES.



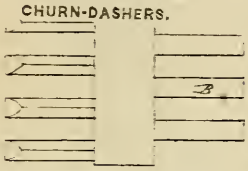
115,175 BIRAM C. DAVIS.
BOXING BLIND-STAPLES.



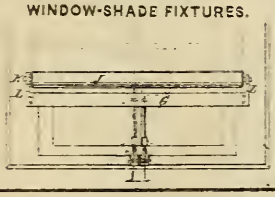
115,176 JACOB Z. DAVIS,
FASTENERS FOR DOORS



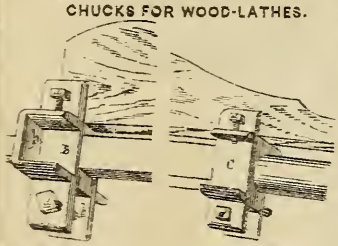
115,177 SAMUEL F. DOLLOFF,
CHURN-DASHERS.



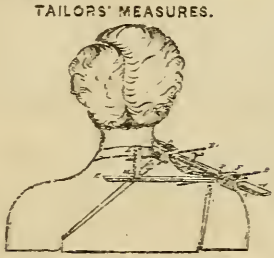
115,178 ALFRED S. DICKINSON.
WINDOW-SHADE FIXTURES.



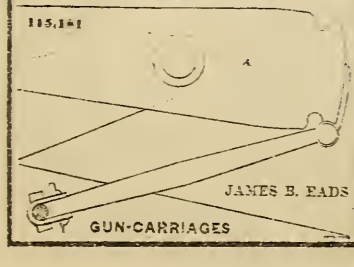
115,179 ROBERT H. DOWLING.
CHUCKS FOR WOOD-LATHES.



115,180 ITHAMAR DU BOIS.
TAILORS' MEASURES.

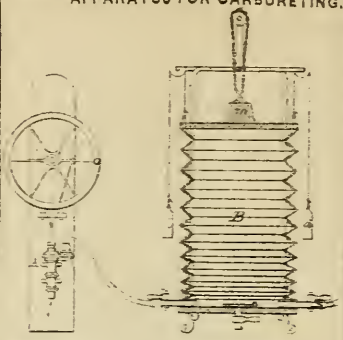


115,181

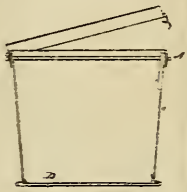


JAMES B. EADS
GUN-CARRIAGES

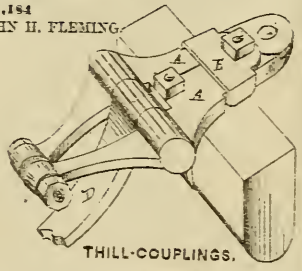
115,182 GEORGE EDMONDS.
APPARATUS FOR CARBURETING.



115,183
ERPELDING AND
ERPELDING.
FOLDING BOXES.

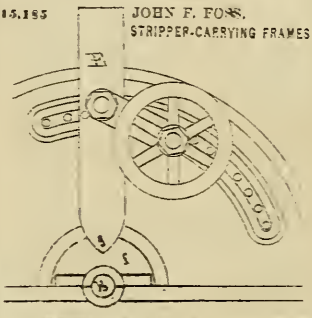


115,184
JOHN H. FLEMING.

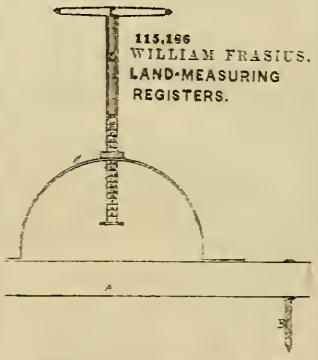


THILL-COUPLINGS.

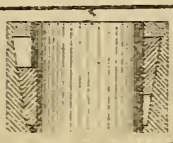
115,185 JOHN F. FOSS.
STRIPPER-CARRYING FRAMES



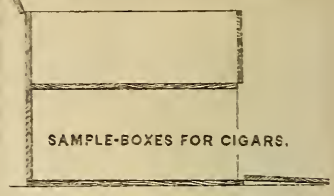
115,186
WILLIAM FRASIUS.
LAND-MEASURING
REGISTERS.



115,187
GIDEON FRISBEE,
ROCK-DRILLING
MACHINES.



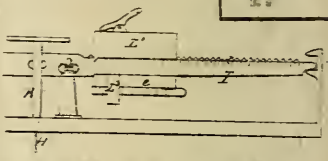
115,188 JOHN C. W. FRISHMUTH.



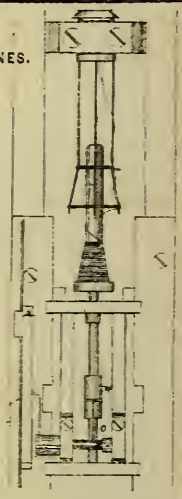
SAMPLE-BOXES FOR CIGARS.

115,189
GATES AND FRITCHEY
VAPOR-BURNERS.

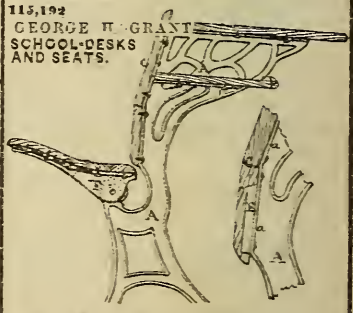
115,190
WILLIAM P. GOOLMAN.
PLATFORM-SCALES.



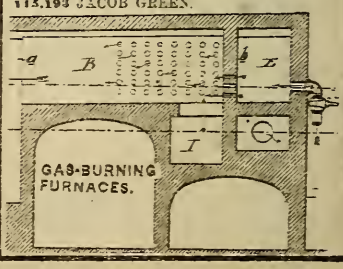
115,191
JOHN GOULDING.
SPINNING-MACHINES.



115,192
GEORGE H. GRANT.
SCHOOL-DESKS
AND SEATS.

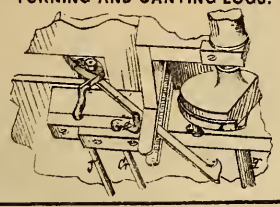


115,193 JACOB GREEN.

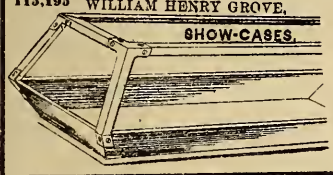


GAS-BURNING
FURNACES.

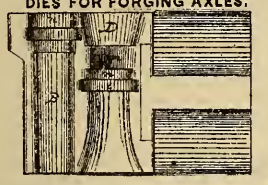
115,194 DAVID S. GRIFFES.
TURNING AND CANTING LOGS.



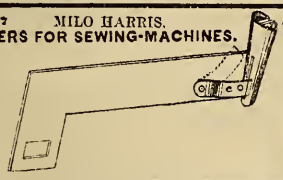
115,195 WILLIAM HENRY GROVE.
SHOW-CASES.



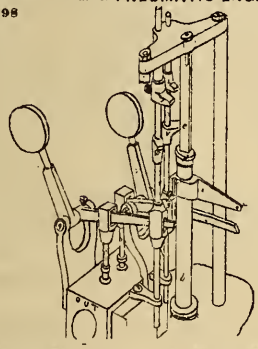
115,196 JOHN HARRINGTON
DIES FOR FORGING AXLES.



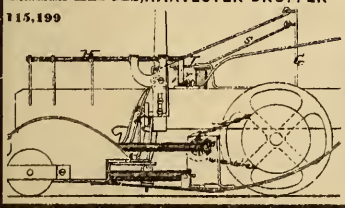
115,197 MILO HARRIS.
HEMMERS FOR SEWING-MACHINES.



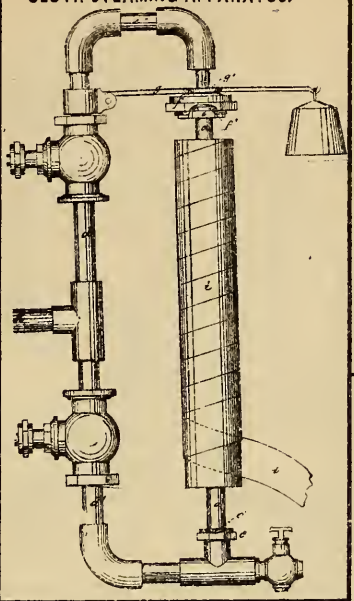
JOHN F. HASKINS. PNEUMATIC ENGINES.
115,198



ISRAEL HEDGES, HARVESTER-DROPPER
115,199

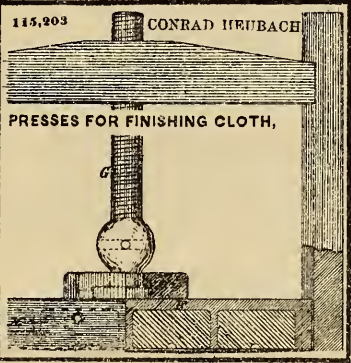


115,200 LUKE M. HEERY.
CLOTH-STEAMING APPARATUS.

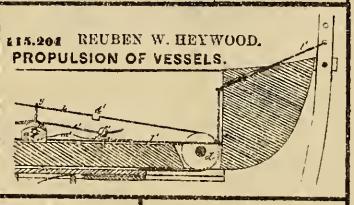


115,202 JOHN HELM,
BLEACHING RUBBER, GUTTA-PERCHA,

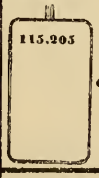
115,203 CONRAD HEUBACH
PRESSES FOR FINISHING CLOTH,



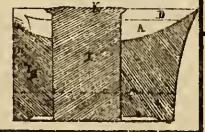
115,204 REUBEN W. HEYWOOD.
PROPULSION OF VESSELS.



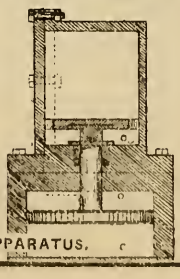
JOSEPH R. HICE
FIRE-KINDLER
115,205



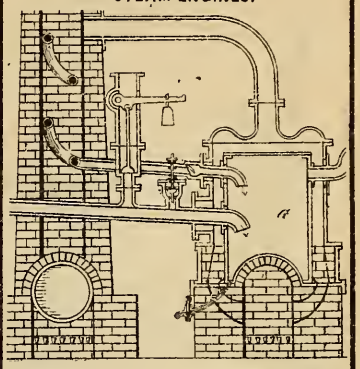
115,206
AUGUSTUS L. HOLBROOK.
HEELS FOR BOOTS AND SHOES.



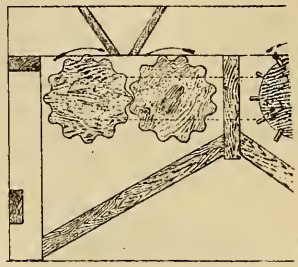
115,207
HOTCHKISS, AND ALLERTON.
VULCANIZING APPARATUS.



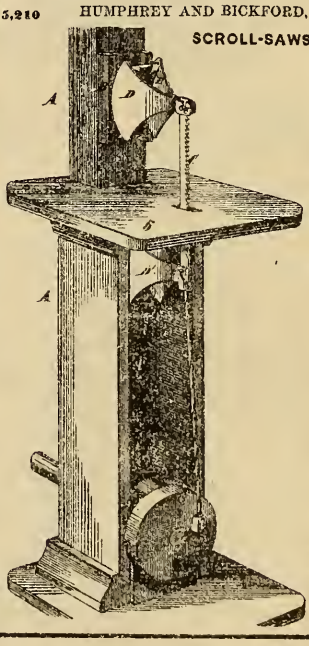
115,208 JOHN HOUPT.
STEAM-ENGINES.



115,209 JOHN HUGHES.
UTILIZING IMMATURE COTTON-BOLLS.

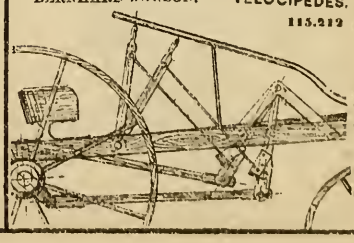


115,210 HUMPHREY AND BICKFORD,
SCROLL-SAWS.

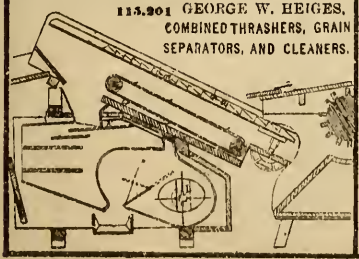


115,211 WILLIAM A. IVES, BUNG-BORERS.

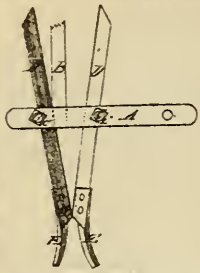
BERNHARD JANSON, VELOCIPEDES.
115,212



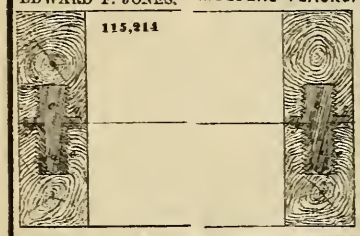
115,201 GEORGE W. HEIGES,
COMBINED THRASHERS, GRAIN SEPARATORS, AND CLEANERS.



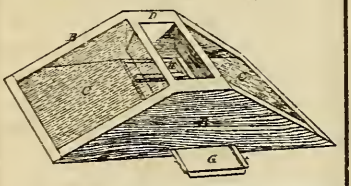
M. JOHNSON. 115,213.
Cultivator and Weeding-Machines.



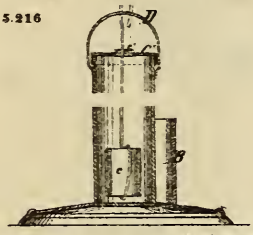
EDWARD F. JONES. MOLDERS' FLASKS.
115,214



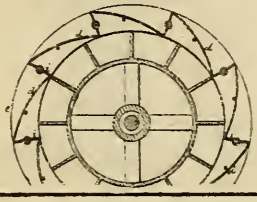
115,215 JAMES M. KEEP.
ROACH OR BUG TRAPS.



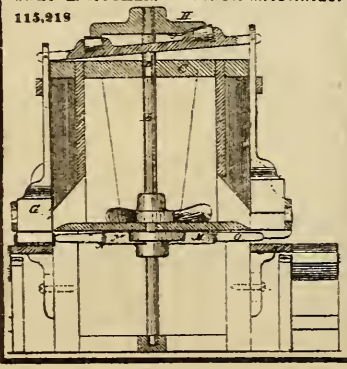
ABRAHAM B. KING. FIRE-KINDLERS.
115,216



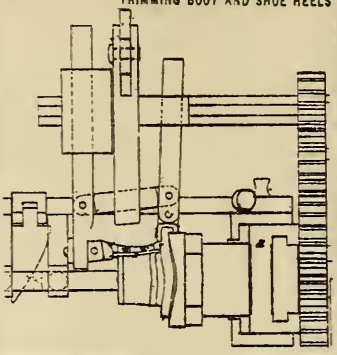
115,217 JOHN J. KNOWLTON.
TURBINE WATER-WHEELS.



JOHN L. KUCKER. BRICK-MACHINES.
115,218

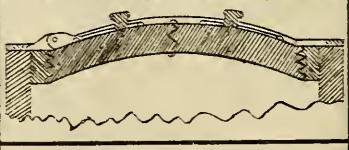


115,219 RICHARD C. LAMBERT.
TRIMMING BOOT AND SHOE HEELS

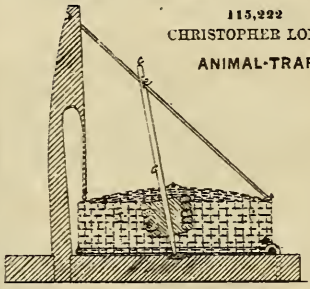


115,220 LEVI AND KUNZEL.
ALLOYS OR BRONZES.

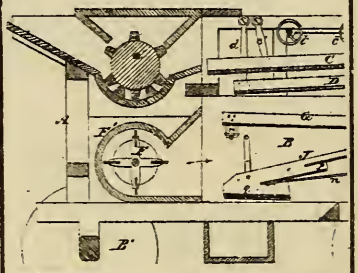
115,221 LEWIS AND STERLING, SAFES.



115,222
CHRISTOPHER LONG,
ANIMAL-TRAPS.



115,223 MARTIN H. MANSFIELD.
THRASHING-MACHINES

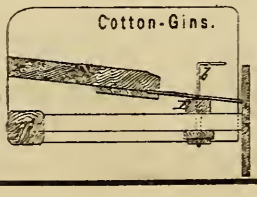


115,224
ARNOLD P. MASON,
CHECK-REIN SWIVELS

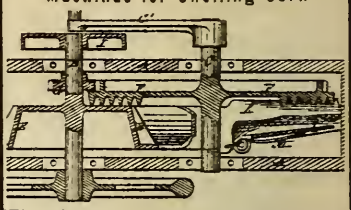
115,225.

McCLINTOCK & CUMBERLAND.
Cotton-Bale Ties.

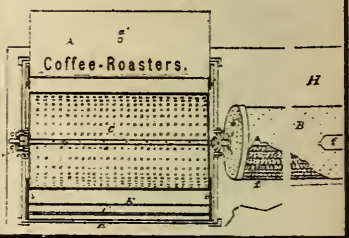
115,226. F. M. McMEEKIN.
Cotton-Gins.



115,227. MILLER & N. DUBRUL.
Machines for Shelling Corn

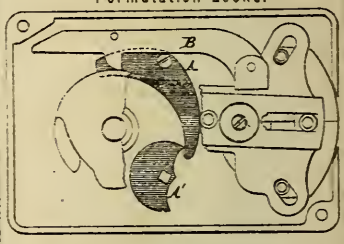


115,228. R. L. MILLS.
Coffee-Roasters.

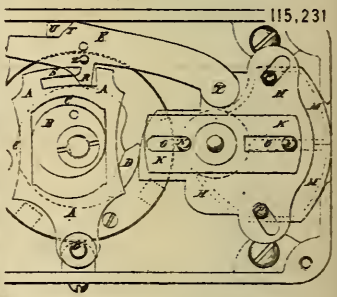


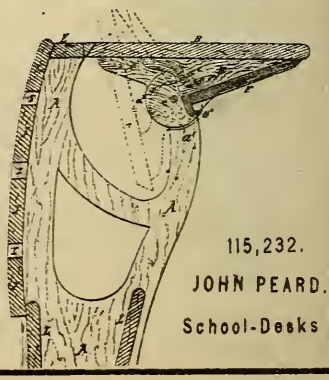
115,229 GEORGE W. NASH.
Corpse-Preservers.

115,230 JACOB OBERNESSER.
Permutation-Locks.



115,231

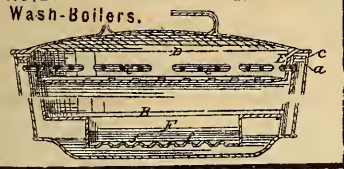




115,232.
JOHN PEARD.
School-Desks

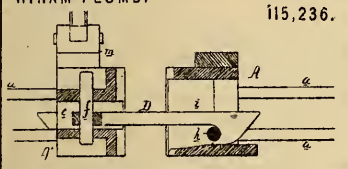
115,233.
Spindle-Steps and Covers for Spinning-Machines.
OLIVER PEARL.

115,234. HENRY W. PELL.
Wash-Boilers.

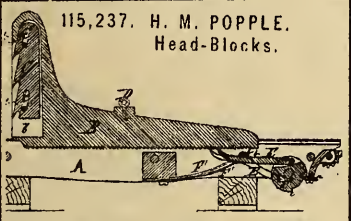


115,235.
G. Y. Pierce
Bustle.

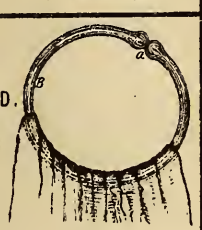
HIRAM PLUMB. Car-Couplings.
115,236.

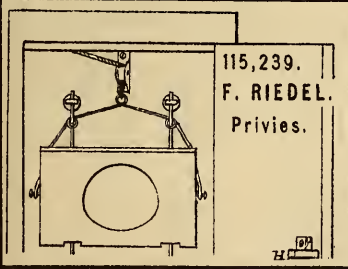


115,237. H. M. POPPLE.
Head-Blocks.



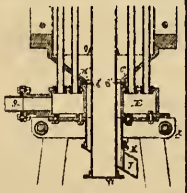
115,238.
P. H. RAIFORD.
Attaching Napkins to the Person.



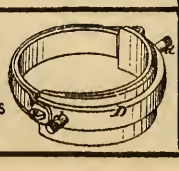


115,239.
F. RIEDEL.
Privies.

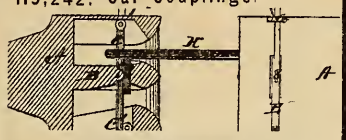
115,240.
A. ROBERT.
Grain-Driers.



115,241.
E. ROGERS.
Attaching Booms to Masts.

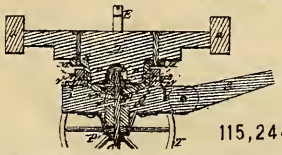


ROYAL, LENTZ & DEIBERT.
115,242. Car-Couplings.



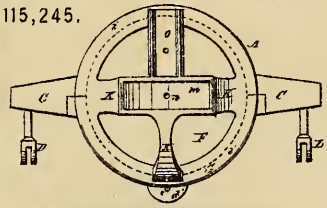
115,243. E. L. SEYMOUR. PREPARING AND TREATING IRON ORES IN THE MANUFACTURE OF STEEL.

JACOB SKEEN. Dumping-Wagons

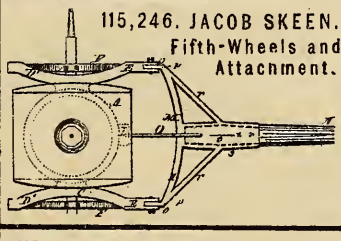


115,244.

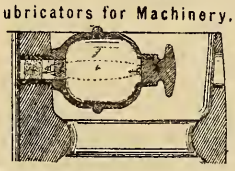
JACOB SKEEN. Fifth-Wheels.
115,245.



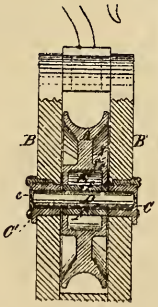
115,246. JACOB SKEEN.
Fifth-Wheels and Attachment.



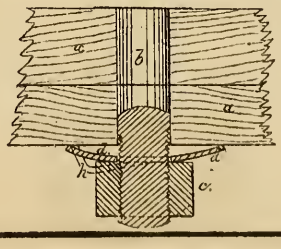
115,247. GEORGE E. SMITH.
Lubricators for Machinery.

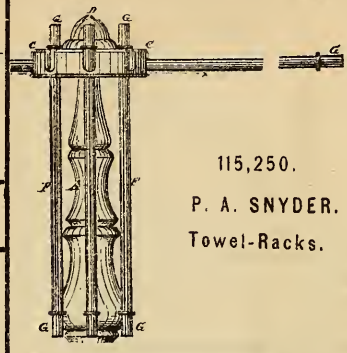


115,248.
HENRY SMITH.
Pulley-Blocks.



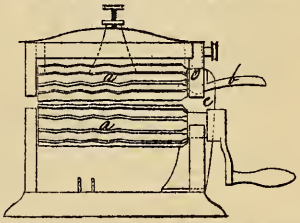
115,249. L. J. SMITH. Lock-Nuts.



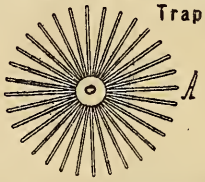


115,250.
P. A. SNYDER.
Towel-Racks.

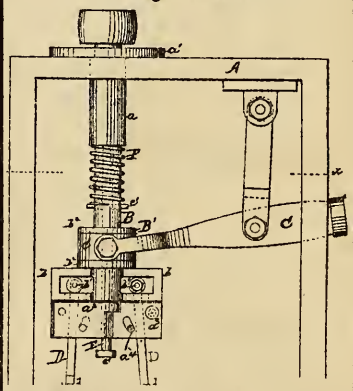
115,251. Fluting-Machines.
H. SOMMER & CHARLES BAUER.



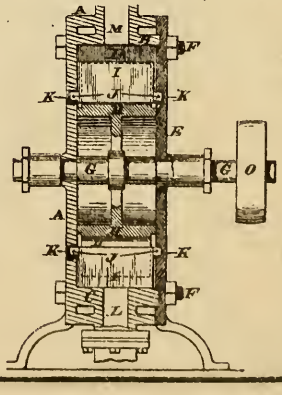
115,252. CHARLES F. SPENCER
Trap-Balls



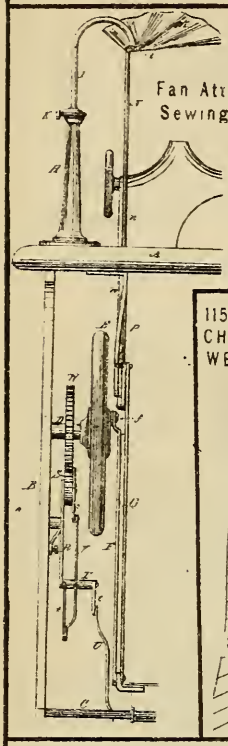
115,253. A. W. C. STERNBERG.
Bung-Cutters.



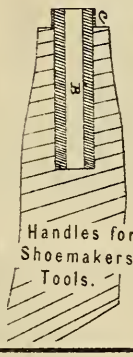
115,254. H. P. TENANT Rotary-Pumps.



115,255. GEORGE THOMPSON. Fan Attachment for Sewing-Machines.

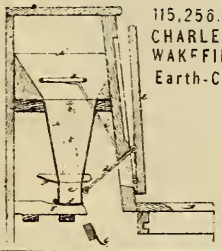


115,257 CHARLES G. WEGNER.

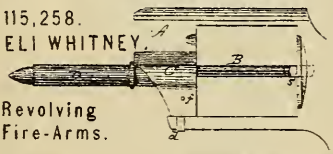


Handles for Shoemakers' Tools.

115,256. CHARLES A. WAKEFIELD Earth-Closets.

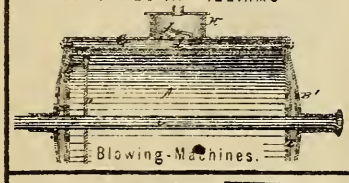


115,258. ELI WHITNEY



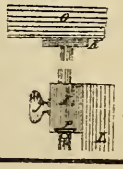
Revolving Fire-Arms.

115,259. JAMES M. WILLIAMS

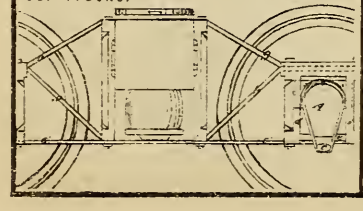


Blowing-Machines.

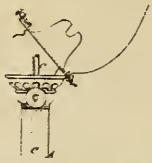
115,260. B. WILMOT. Sash-Holders



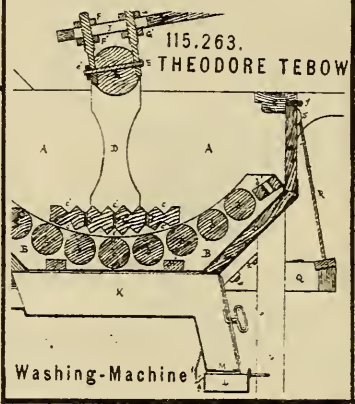
115,261. R. WINSLOW. Car-Trucks.



115,262 F. YEISER & S. W. HEDGER. Lamps.

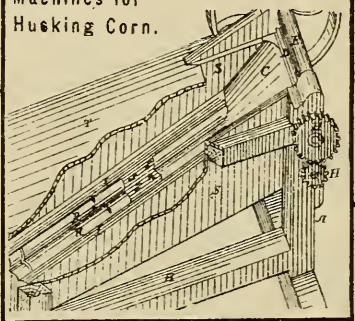


115,263. THEODORE TEBOW

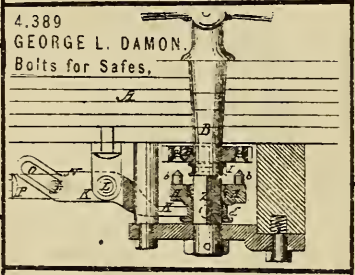


Washing-Machine

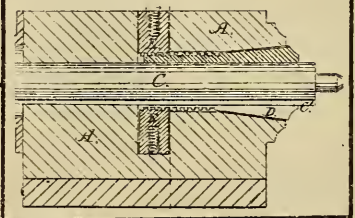
4,388. L. A. ASPINWALL. Machines for Husking Corn.



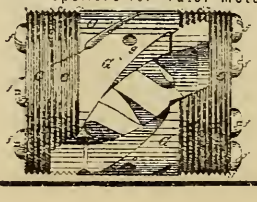
4,389 GEORGE L. DAMON. Bolts for Safes.



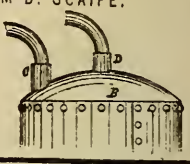
4,390 L. R. FAUGHT. Turning-Lathes.



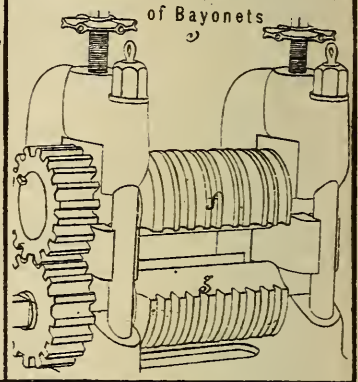
4,391 H. F. READ 4,392. Screw-Propellers for Water-Meters.



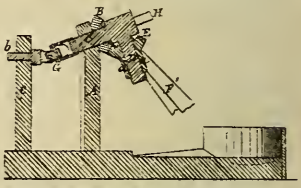
4,393 WILLIAM B. SCAIFE. Kitchen-Boiler



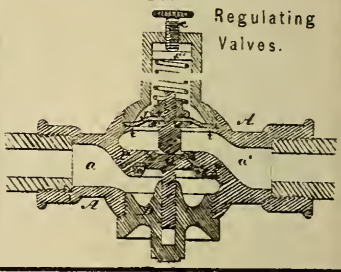
4,394. H. WATERS. Manufacture of Bayonets



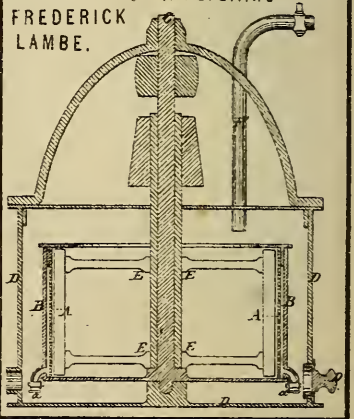
4,395. JOHN C. DURBOROW. Harvester-Rakes.



4,396 B. HOLLY. Automatic Regulating Valves.



4,397. Purifying Paraffine FREDERICK LAMBE.



4,398 DAVID H. MORRISON. Iron-Bridges.

ILLUSTRATIONS OF PATENTS

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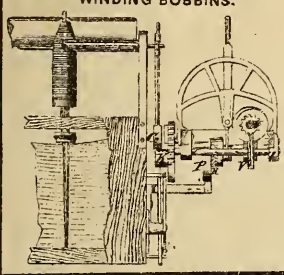
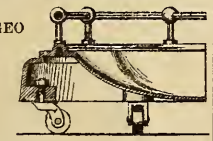
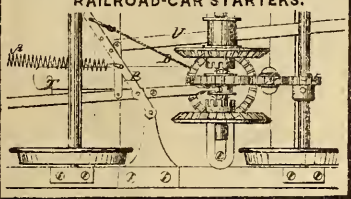
115,262 ADAMS AND TOLMAN.
WINDING BOBBINS.



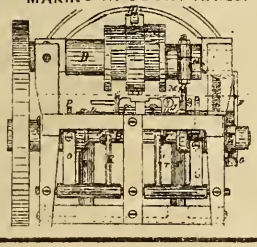
115,263
CHARLES C. ALGEO
FIRE-PLACE FENDERS.



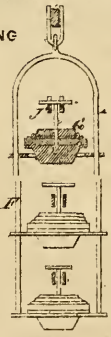
115,266 ARTHUR AMORY.
RAILROAD-CAR STARTERS.



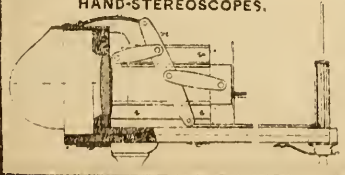
115,267 DANIEL ARMSTRONG.
MAKING WROUGHT-NAILS.



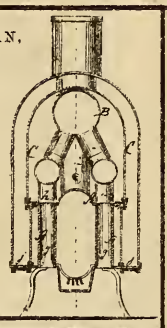
115,268 BAKER, ROOT AND CASE, PLATFORM WEIGHING -SCALES.



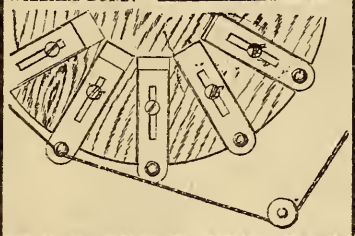
115,269 ALEXANDER BECKERS.
HAND-STEREOSCOPES.



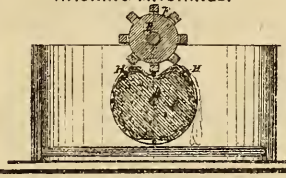
115,270
JAMES M. BLACKMAN.
HOT-AIR FURNACES.



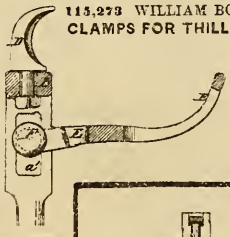
115,271
SPINNING-MULES.
WILLIAM BOND.



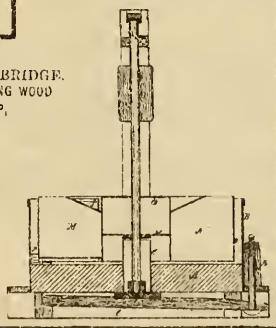
115,272 NATHAN BOOTH,
WASHING-MACHINES.



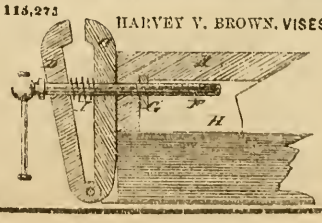
115,273 WILLIAM BOYD.
CLAMPS FOR THILL-COUPLINGS.



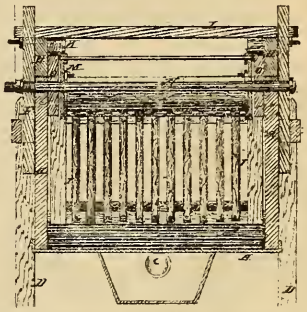
115,274
JAMES BRIDGE.
CONVERTING WOOD INTO PULP.



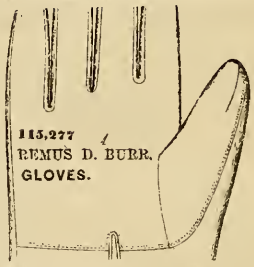
115,275 HARVEY V. BROWN. VISES.



115,276 JOHN BROWN.
WASHING-MACHINES.

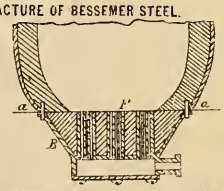


115,277
REMUS D. BURR.
GLOVES.

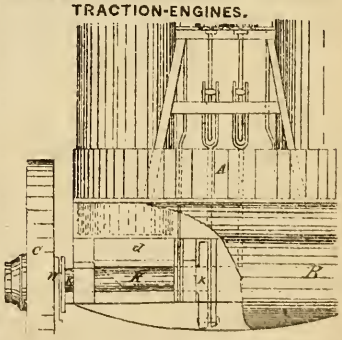


115,278 GEORGE A. BURROUGH.
MANUFACTURE OF ARTICLES OF ENAMELED METALS.

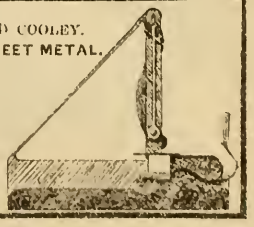
115,279 HENRY CHISHOLM
MANUFACTURE OF BESSEMER STEEL.



115,280 JAMES HENRY CLAPHAM.
TRACTION-ENGINES.



115,281
COOLEY AND COOLEY.
BENDING SHEET METAL.



115,282
DANIEL B. DARBY,
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115,283
HENRY WILLIAM DEE,
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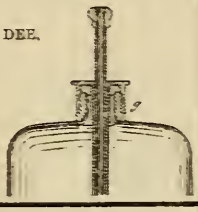
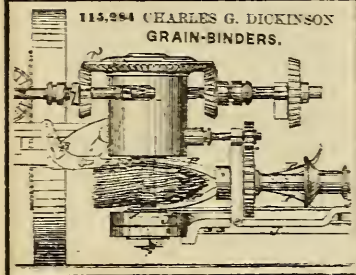
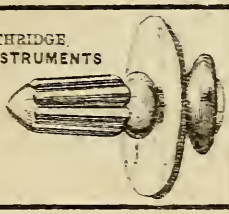


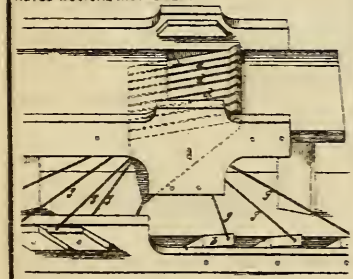
115,284 CHARLES G. DICKINSON
GRAIN-BINDERS.



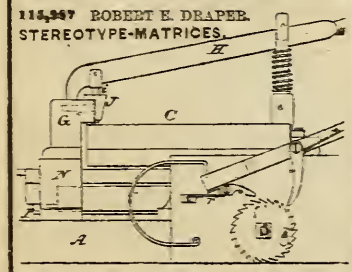
115,285
EDWARD DITHRIDGE,
SURGICAL INSTRUMENTS



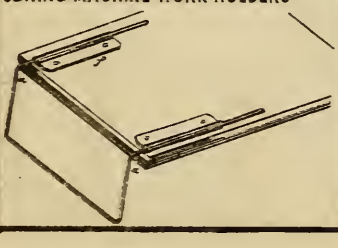
115,286
HARRISON DOWNES.
KEYED MUSICAL INSTRUMENTS.



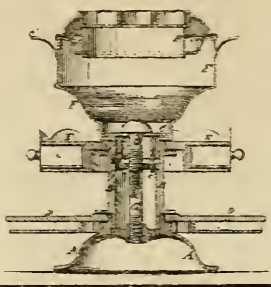
115,287 ROBERT E. DRAPER.
STEREOTYPE-MATRICES.



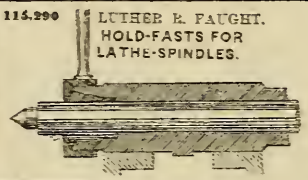
115,288 HENRY EDDY,
SEWING-MACHINE-WORK HOLDERS



115,289 WILLIAM JOHN EVANS
REVOLVING URN-STANDS.

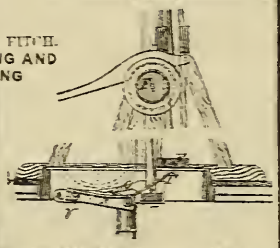


115,290 LUTHER R. FAUGHT.
HOLD-FASTS FOR LATHE-SPINDLES.



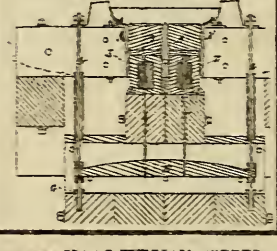
115,291 LUTHER R. FAUGHT.
DIE-STOCKS FOR CUTTING SCREWS.

115,292
ROSS L. FITCH.
HOISTING AND LOWERING



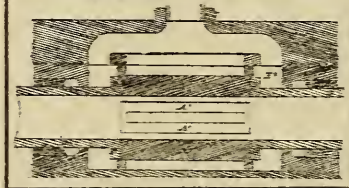
115,293 ISAAC WILLIAM FORBES, POLISHING OILS PRECIOUS METALS

115,295 ISAAC WILLIAM FORBES.
STAMP-PATTERIES.



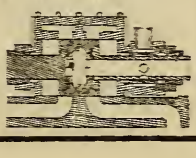
115,294 ISAAC WILLIAM FORBES CLEANING PULVERIZED ORES SO AS TO AID AMALGAMATION

115,296 ISAAC WILLIAM FORBES.
OSCILLATING VALVES

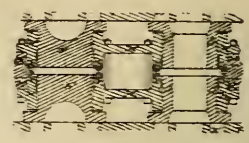


115,297 ISAAC WILLIAM FORBES.
OSCILLATING VALVES

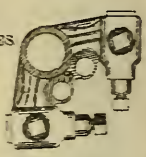
115,298
ISAAC WILLIAM FORBES.
SLIDE-VALVES



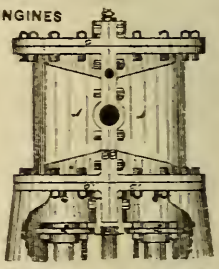
115,299 ISAAC WILLIAM FORBES,
SLIDE-VALVES



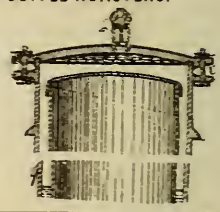
115,300 VALVE-GEARS
ISAAC WILLIAM FORBES



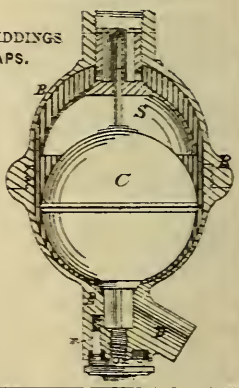
115,301
ISAAC WILLIAM FORBES.
STEAM-ENGINES



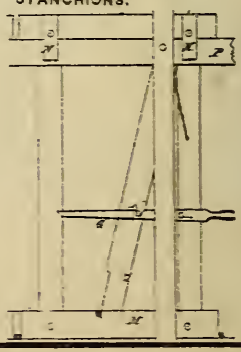
115,302 JAMES GALLOWAY
COFFEE-ROASTERS.



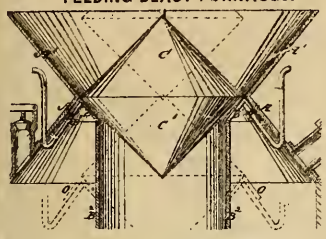
115,303
ISAAC E. GIDDINGS
STEAM-TRAPS.



115,304 WALTER C. GIFFORD.
STANCHIONS.



115,305 LEVEN S. GOODRICH.
FEEDING BLAST-FURNACES.



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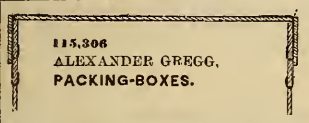
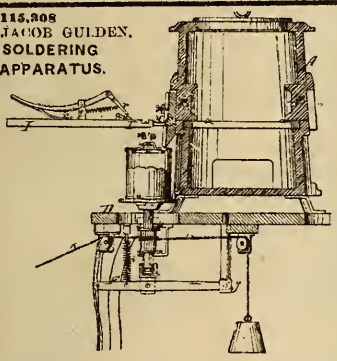
ALEXANDER GREGG,
PACKING-BOXES.

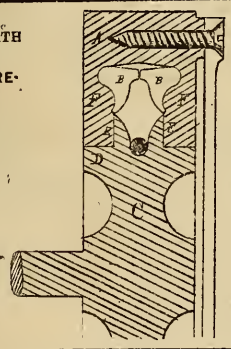


115,307 ANDREW J. GRIGGS.
WHIFFLETREE-HOOKS.

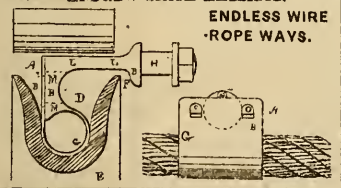
115,308
JACOB GULDEN,
SOLDERING
APPARATUS.



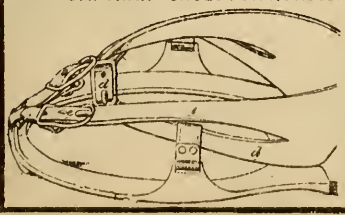
115,309
ANDREW SMITH
HALLIDIE.
ENDLESS WIRE-
ROPE WAYS.



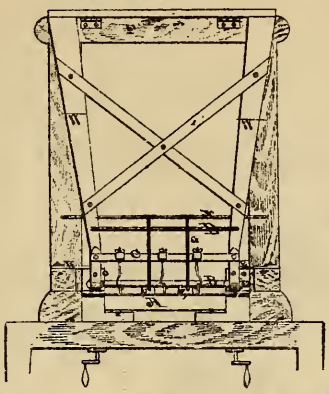
115,310 ANDREW SMITH HALLIDIE.
ENDLESS WIRE
ROPE WAYS.



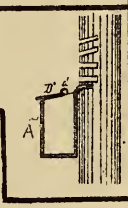
115,311 WILLIAM HUDSON HALSEY,
TEMPORARY SHOES FOR HORSES.



115,312 BENJAMIN R. HAMILTON.
CREASING LEATHER.



115,313
WILLIAM BARKERVILL
TURPENTINE-BOXES.



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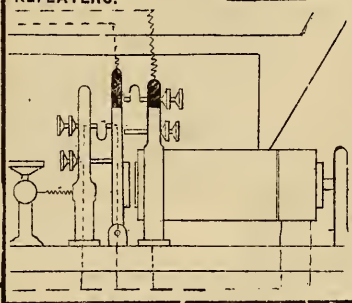
CHARLES H HASKINS,
AUTOMATIC TELEGRAPH
REPEATERS.



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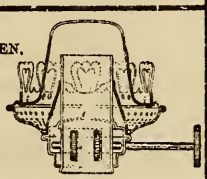
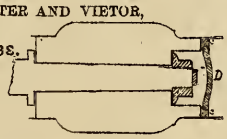
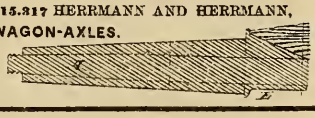
HIRAM W. HAYDEN,
LAMP-BURNERS.



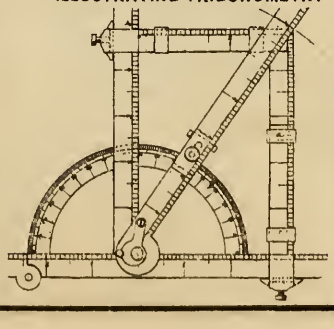
115,316 HEOTER AND VIETOR,
ATTACHING
CAPS TO HUBS.



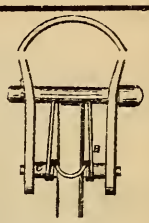
115,317 HERRMANN AND HERRMANN,
WAGON-AXLES.



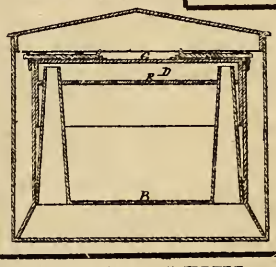
115,318 EDWIN A. HICKMAN,
ILLUSTRATING TRIGONOMETRY



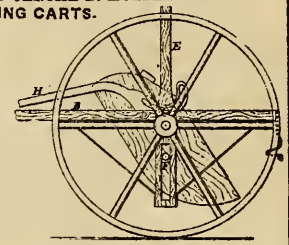
115,319
JAMES HOPKINS,
ANIMAL-POKES.



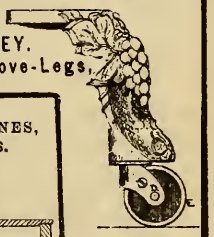
115,320
MARCUS L. HORTON,
WASH-BOILERS.



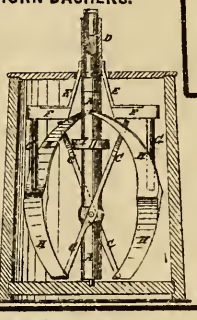
115,321 JEROME B. HULBERT.
DUMPING CARTS.



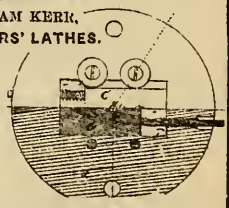
115,322.
H. A. HUMPHREY.
Casters for Stove-Legs.



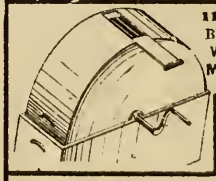
115,323
WILLIAM F. JONES,
CHURN-DASHERS.



115,324 WILLIAM KERR,
WATCHMAKERS' LATHES.

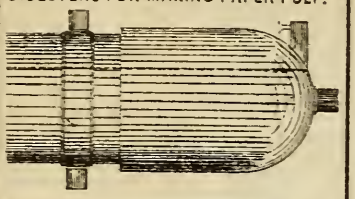


115,325
BENJAMIN KINNE.
WASHING-
MACHINES.



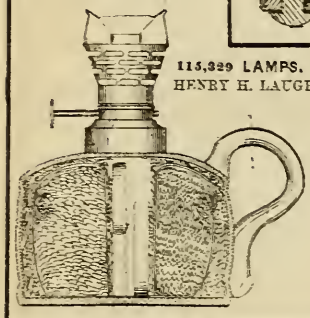
115,326
WILLIAM M.
KIRCHNER.
GLASS JARS.

115,327 WILLIAM F. LADD.
DIGESTERS FOR MAKING PAPER-PULP.



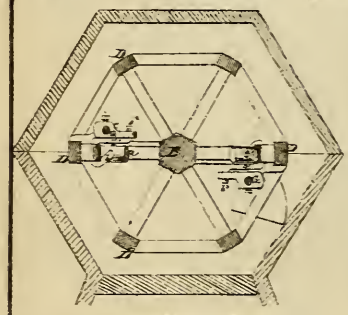
115,328
ORRIN H. LANGDON.
HANDSAWS.

115,329 LAMPS.
HENRY H. LAUGHLIN.

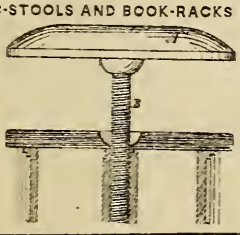


115,330
GEORGE C. LAWTON.
GATE AND DOOR LATCHES.

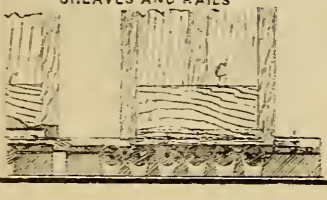
115,331
FITCH B. LEWIS.
FLOUR-BOLTING REELS.



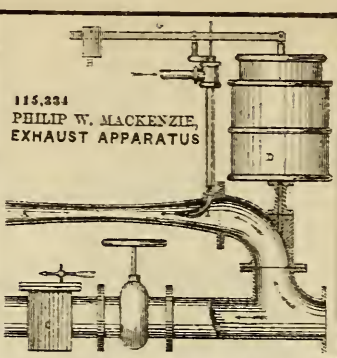
115,332 JOHN P. LOMAS.
MUSIC-STOOLS AND BOOK-RACKS



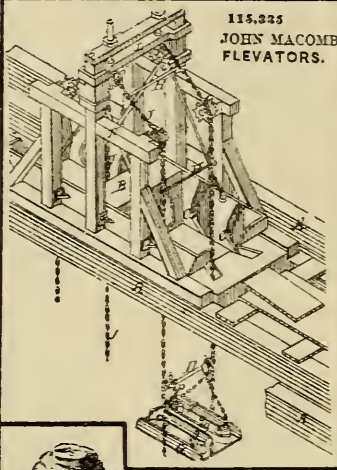
115,333 THOMAS M. LYONS.
SHEAVES AND RAILS



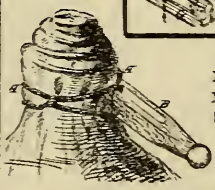
115,334
PHILIP W. MACKENZIE.
EXHAUST APPARATUS



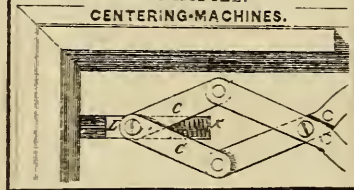
115,335
JOHN MACOMB.
ELEVATORS.



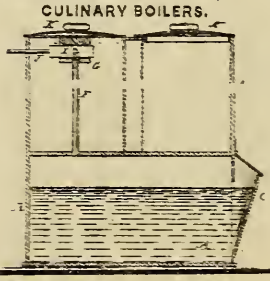
115,336
MARKHAM AND MARKHAM.
BAG-TIES.



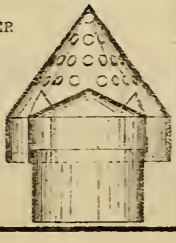
115,337 EUGENE McNIEL.
CENTERING-MACHINES.



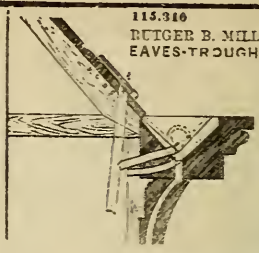
115,338 FREDERICK MEYER.
CULINARY BOILERS.



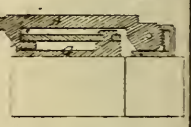
115,339
BENJAMIN F. MILLER.
VENTILATORS.



115,340
BUTGER B. MILLER.
EAVES-TROUGHS

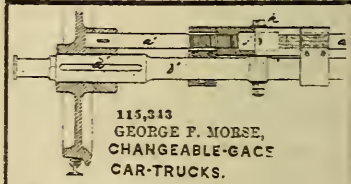


115,341
WILLIAM MILLER.
SASHES.

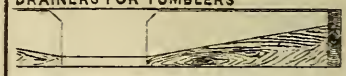


115,342
ADOLPH MILLOHAU.
LUBRICATING COMPOUNDS.

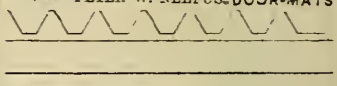
115,343
GEORGE F. MORSE.
CHANGEABLE-GAGE CAR-TRUCKS.



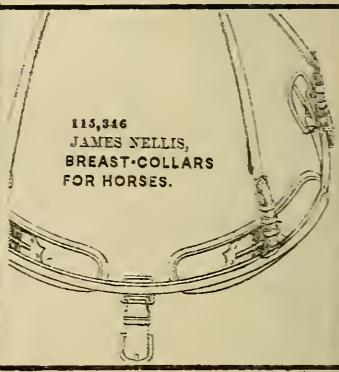
115,344 PETER W. NEEFUS.
DRAINERS FOR TUMBLERS



115,345 PETER W. NEEFUS. DOOR-MATS



115,346
JAMES NELLIS.
BREAST-COLLARS FOR HORSES.



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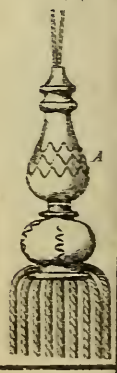
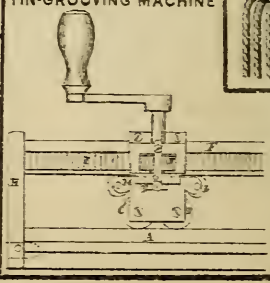
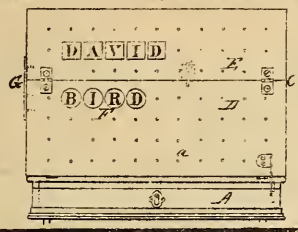
JAMES NORMAN.
TASSELS.



115,348
HORATIO J. NOYES.
TIN-GROOVING MACHINE

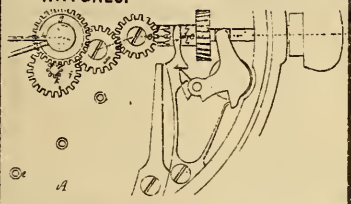


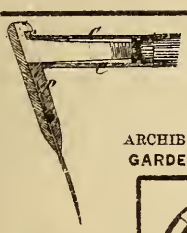
115,349 JOHN H. PALM, LETTER-BOARDS



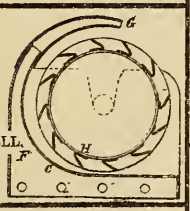
115,350 GEORGE T. PARRY, VAPOR-BURNERS.

115,351 EDWIN HATHAWAY PERRY, STEM-WINDING WATCHES.



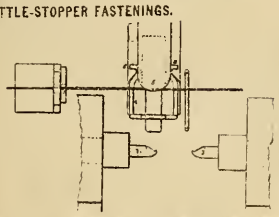


115,352 ARCHIBALD A. PORTER, GARDEN IMPLEMENTS.

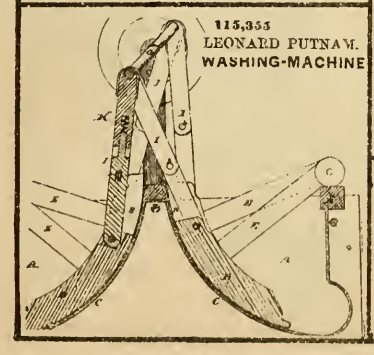


115,353 CHARLES W. POWELL, WASH-BOILERS.

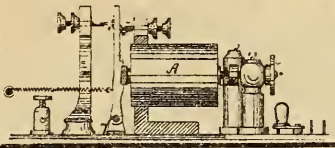
115,354 HENRY W. PUTNAM. WIRE BOTTLE-STOPPER FASTENINGS.



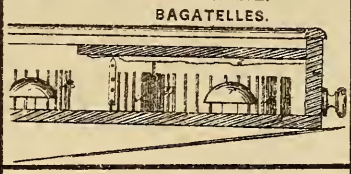
115,355 LEONARD PUTNAM. WASHING-MACHINE



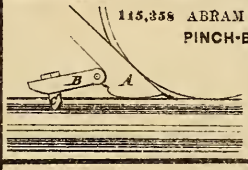
115,356 CLARENCE RATHBONE. TELEGRAPH-RELAY INSTRUMENTS.



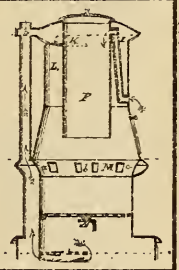
115,357 MONTAGUE REDGRAVE. BAGATELLES.



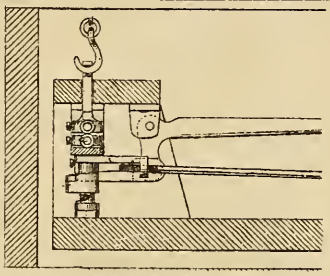
115,358 ABRAM REESE, PINCH-BARS.



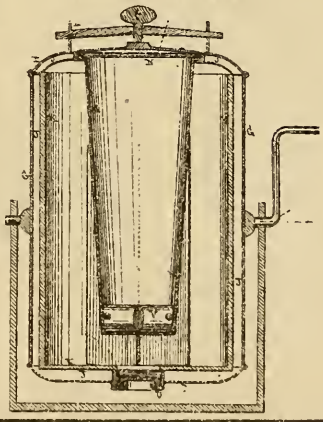
115,359 HENRY R. REMSEN BASE-BURNING STOVES.



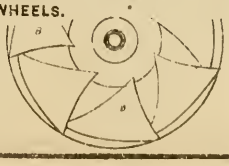
115,360 IRA ABIEL RICHARDS. BOAT-DETACHING APPARATUS.



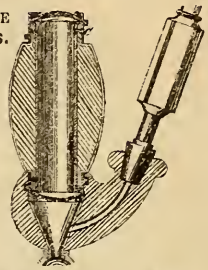
115,361 MORITZ ROSENSTEIN, ICE-CREAM FREEZERS.



115,362 REUBEN R. ROYER, WATER-WHEELS.

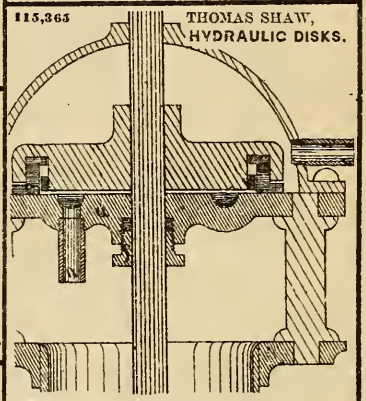


115,363 WILLIAM G. RUGE TOBACCO-PIPES.

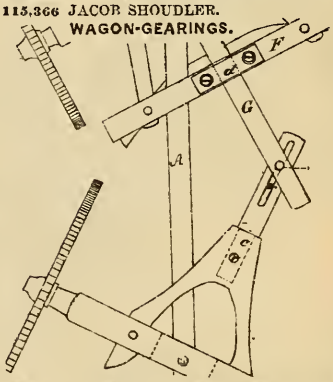


115,364 ALBERT P. SEYMOUR, SHUTTER-FASTENINGS.

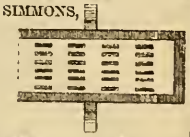
115,365 THOMAS SHAW, HYDRAULIC DISKS.



115,366 JACOB SHOUDLER. WAGON-GEARINGS.

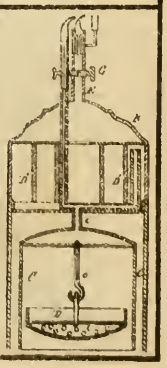


115,367 ALONZO J. SIMMONS, SEDIMENT FROM BOILING LIQUIDS.



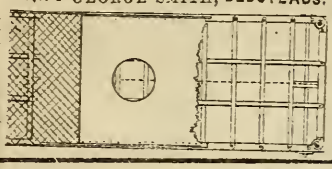
115,368 DANIEL WEBSTER SIMMONS, CARPENTERS' GAGES.

115,369 BYRON SLOPER. BURNING HYDROGEN GAS.

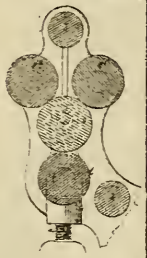


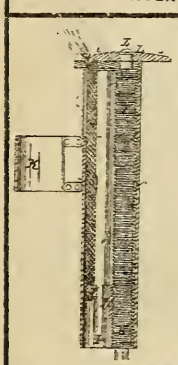
115,370 DEXTER SMITH SHOT-GUNS.

115,371 GEORGE SMITH, BEDSTEADS.



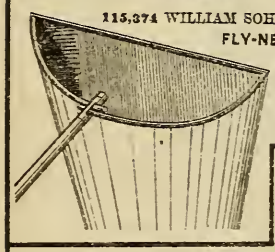
115,372 HAMILTON E. SMITH, CLOTHES-WRINGERS.



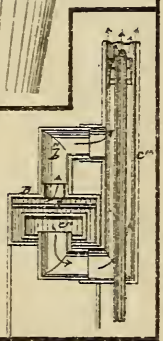


115,373 WILLARD H. SMITH, IGNITING GAS AND OTHER LIGHTS.

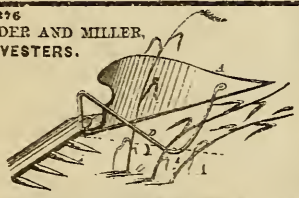
115,374 WILLIAM SOHIER, FLY-NETS.



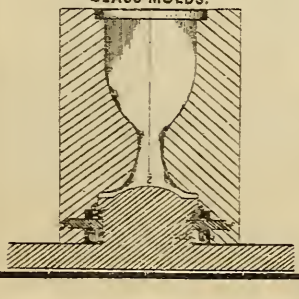
115,375 WILLIAM H. SOLEY, DRYING PAPER.



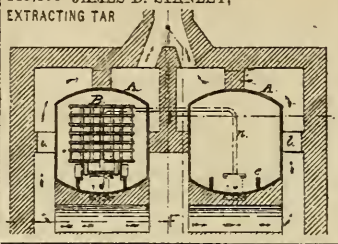
115,376 SOUDER AND MILLER, HARVESTERS.



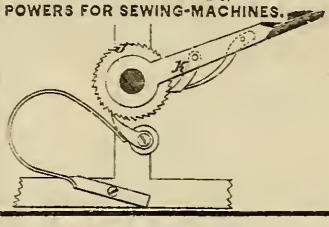
115,377 CARL STADELMANN, GLASS-MOLDS.



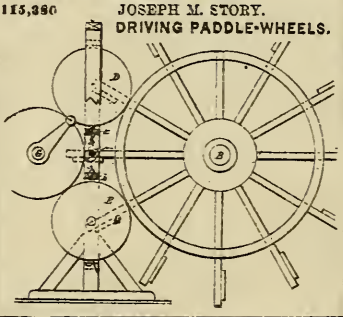
115,378 JAMES D. STANLEY, EXTRACTING TAR



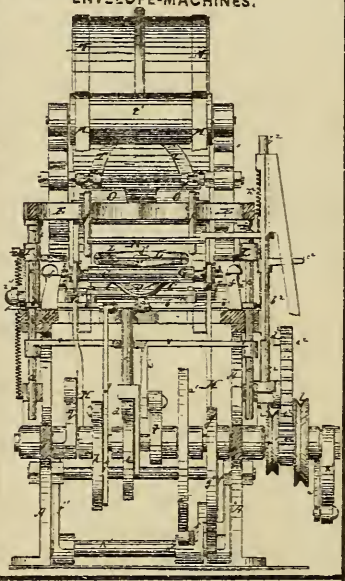
115,379 DAVID E. STEARNS, POWERS FOR SEWING-MACHINES.



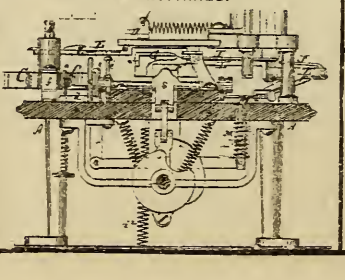
115,380 JOSEPH M. STORY, DRIVING PADDLE-WHEELS.



115,381 SWIFT AND SWIFT, ENVELOPE-MACHINES.

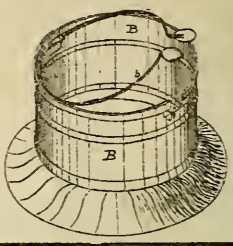


115,382 SWIFT AND SWIFT, ENVELOPE-MACHINES.



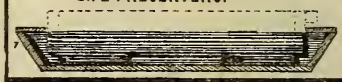
115,383 PHILO SYLLA, DESKS OR SEATS.

115,385 AUGUSTUS E. TAYLOR, LANTERNS.

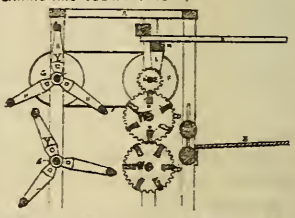


115,384 GEORGE O. TAFT, EMERY POLISHING-STICKS.

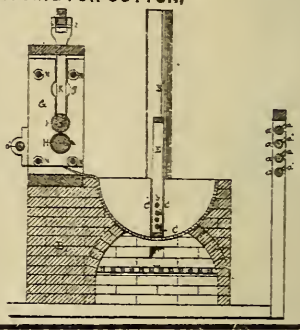
115,386 BENJAMIN W. TAYLOR, LIFE-PRESERVERS.



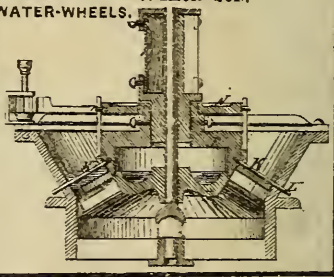
115,387 THEODORE TEBOW, BREAKING AND CLEANING HEMP.



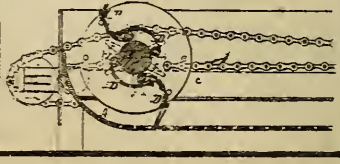
115,388 THEODORE TEBOW, BAGGING FOR COTTON.



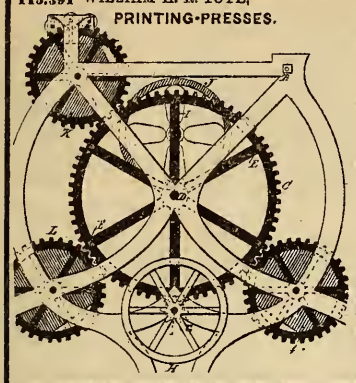
115,389 WILLIAM J. THOMPSON, WATER-WHEELS.



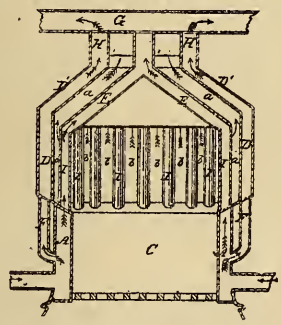
115,390 WENZEL TOEPFER, STIRRING MALT IN THE KILN.



115,391 WILLIAM H. R. TOYE,
PRINTING-PRESSES.

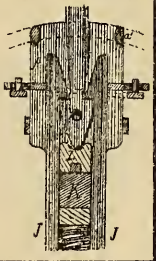


115,392 CHARLES W. TROTTER,
STEAM-HEATERS.

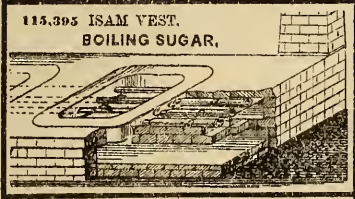


115,393 JOHN W. VAUGHAN,
CUPS OF BOBBIN-WINDING MACHINES.

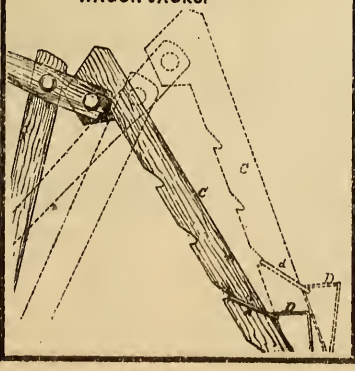
115,394
JEROME B. VEDDER,
CAR-COUPLINGS.



115,395 ISAM VEST,
BOILING SUGAR.



115,396 JOHN WAGNER,
WAGON-JACKS.



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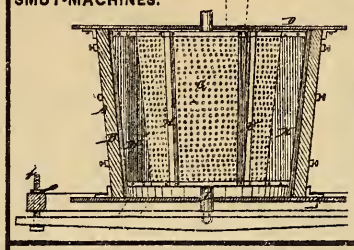
THOMAS WALLACE,
SMUT-MACHINES.



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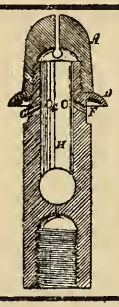
THOMAS WARD.
VAPOR-BURNERS.



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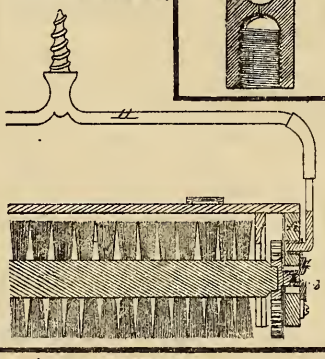
OTIS H. WEED
CARPET-SWEEPERS.



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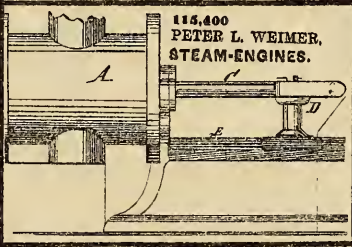
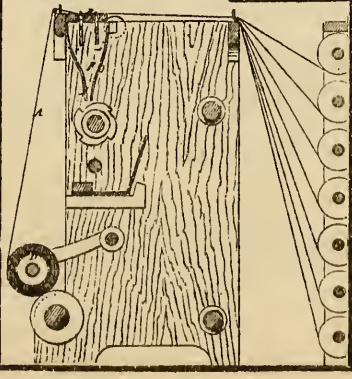
PETER L. WEIMER,
STEAM-ENGINES.



115,401 SAMUEL WHITESIDES.
PLANING-MACHINES.

115,402
WILLIAM C. WILCOX,
CURTAIN-FIXTURES.

115,403
PAUL WILSON AND
JAMES HUNTER,
STOP-MOTIONS



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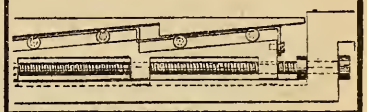
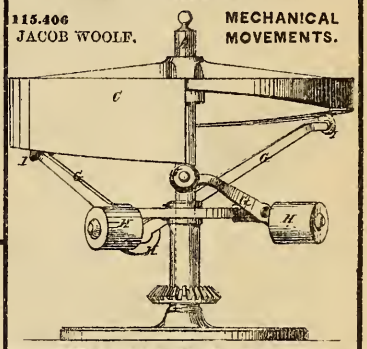
WILLIAM H. WINDSOR,
PRINTERS' FURNITURE.

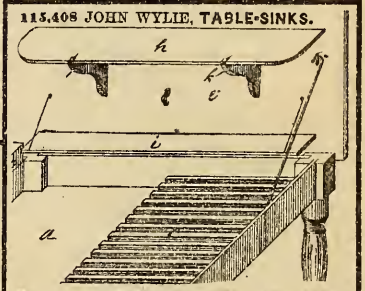


115,405 EDWIN D. WITHERS,
SWEDGES FOR HORSESHOE-CALKS.

115,406
JACOB WOOLF,
MECHANICAL MOVEMENTS.

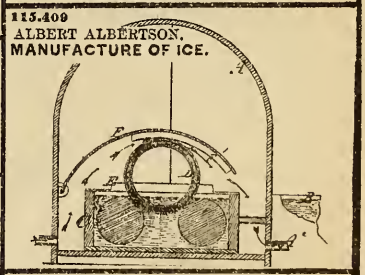


115,408 JOHN WYLIE, TABLE-SINKS.



115,407
ANN E. WRIGHT,
REMEDIES FOR WORMS.

115,409
ALBERT ALBERTSON,
MANUFACTURE OF ICE.



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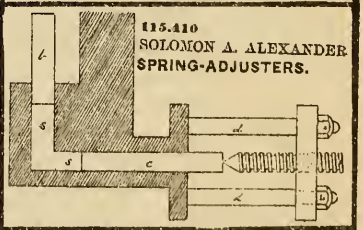
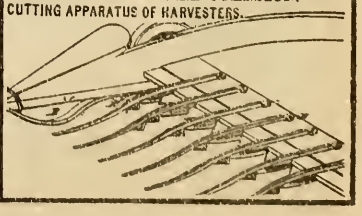
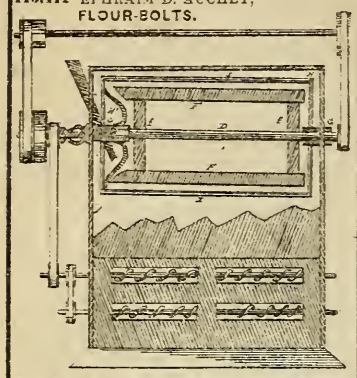
SOLOMON A. ALEXANDER
SPRING-ADJUSTERS.



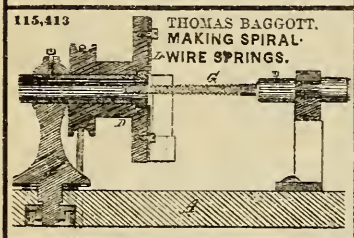
115,411 ANDERSON AND JOHNSTON,
CUTTING APPARATUS OF HARVESTERS.



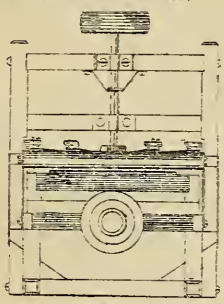
115,412 EPHRAIM D. AUCHEY, FLOUR-BOLTS.



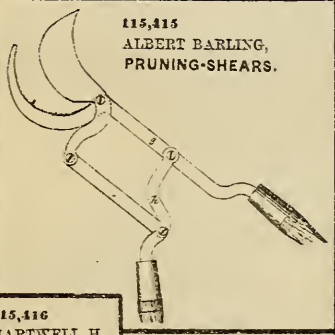
115,413 THOMAS BAGGOTT, MAKING SPIRAL-WIRE SPRINGS.



115,414 JOSEPH BARKER, SAND-PAPERING MACHINES.



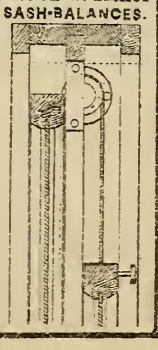
115,415 ALBERT BARLING, PRUNING-SHEARS.



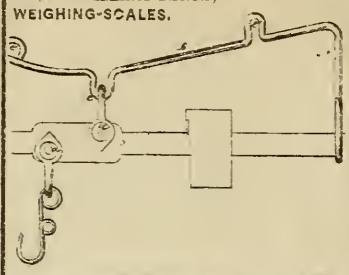
115,416 HARTWELL H. BELLOWS, WASH-BOARDS

115,417 WILLIAM BENDER, REFINING RAW SUGAR

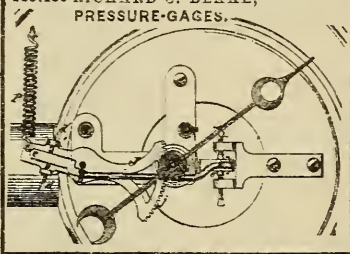
115,418 GEORGE W. BISHOP SASH-BALANCES.



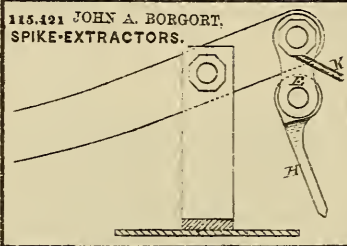
115,419 WILLIAM BLACK, WEIGHING-SCALES.



115,420 RICHARD C. BLAKE, PRESSURE-GAGES.

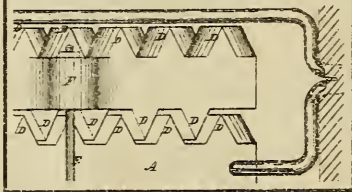


115,421 JOHN A. BORGORT, SPIKE-EXTRACTORS.

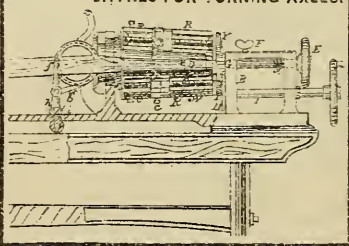


115,422 AUGUSTUS O. BOURN, BOOTS AND SHOES.

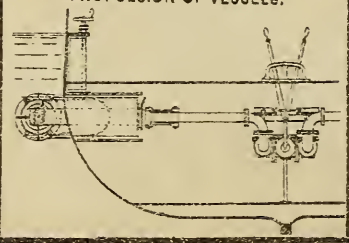
115,423 NOAH BOWEN, STEAM-HEATER



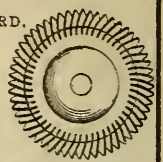
115,424 ADAM J. BOWER, LATHES FOR TURNING AXLES.



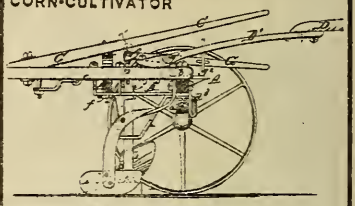
115,425 RICHARD BOYMAN BOYMAN, PROPULSION OF VESSELS.



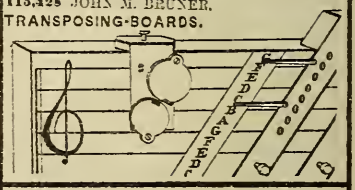
115,426 HORACE C. BRADFORD, SINKER-WHEELS



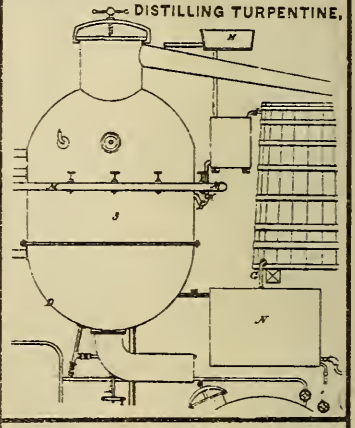
115,427 GUSTAVUS D. BROWN CORN-CULTIVATOR



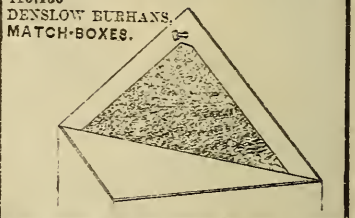
115,428 JOHN M. BRUNER, TRANSPOSING-BOARDS.



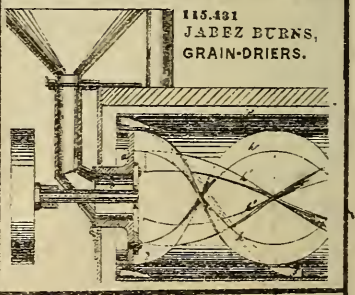
115,429 CHARLES J. T. BURCEY, DISTILLING TURPENTINE.



115,430 DENSLOW BURHANS, MATCH-BOXES.

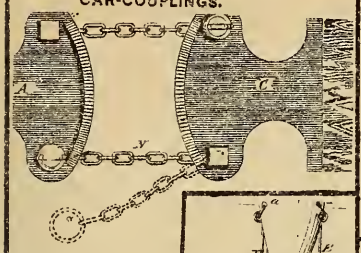


115,431 JABEZ BURNS, GRAIN-DRIERS.



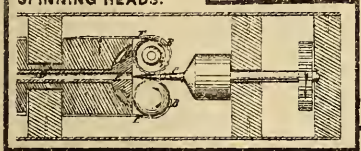
115,432 WILLIAM BUTTERFIELD, RIVETS.

115,433 WILLIAM CALLOW,
CAR-COUPLINGS.

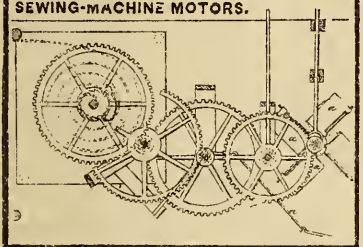


115,434
WILLIAM D. CHAPMAN,
MINNOW-PROPELLERS.

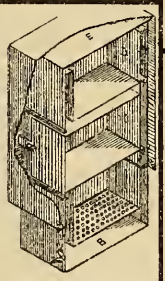
115,435
JOHN W. CHAPPELL,
TWISTING AND
SPINNING HEADS.



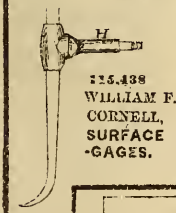
115,436 CONSTABLE AND RIGGS,
SEWING-MACHINE MOTORS.



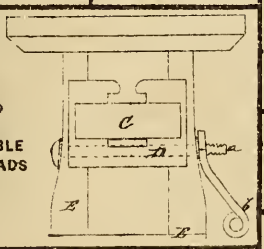
115,437
JOHN GRAHAM COOEY
STEAM-COOKING
APPARATUS.



115,438
WILLIAM F.
CORNELL,
SURFACE
-GAGES.



115,439
CORY AND
CRANE
ADJUSTABLE
DRAW-HEADS



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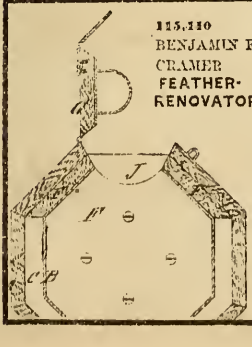
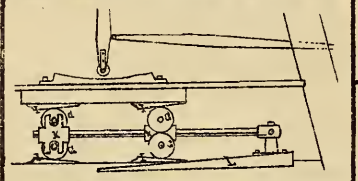
BENJAMIN FRANKLIN
CRAMER
FEATHER-
RENOVATORS.



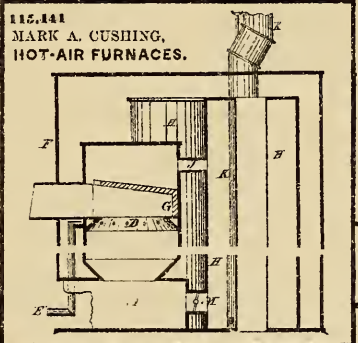
115,441
THOMAS C. CRAVEN,
COTTON-GIN SAWS.

115,442
JAMES CUNNINGHAM,
STANDARDS FOR DROP-LIGHTS.

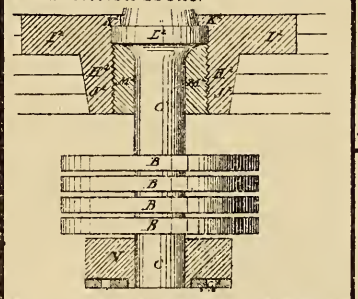
115,443 JOHN G. CURTIS,
MACHINES FOR ROLLING LEATHER.



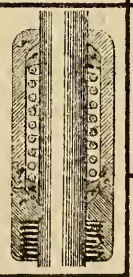
115,444
MARK A. CUSHING,
HOT-AIR FURNACES.



115,445 GEORGE L. DAMON,
PERMUTATION LOCKS.

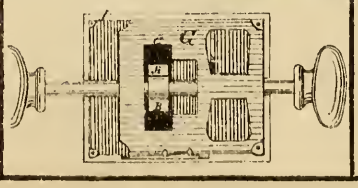


115,447
CHARLES DEAVS,
EXTENSION DROP-LIGHTS

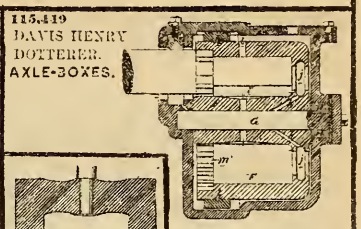


115,446 EZRA DAVEE,
SEASONING WOOD.

115,448
JONATHAN L. DEVOL,
LOCKING-LATCHES
FOR GATES.



115,449
DAVIS HENRY
DOTTERER,
AXLE-BOXES.



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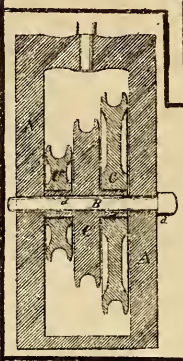
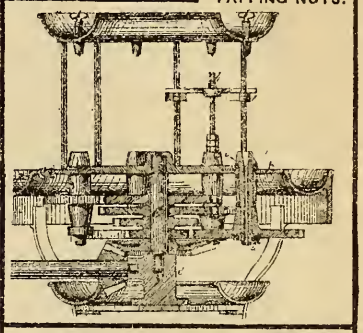
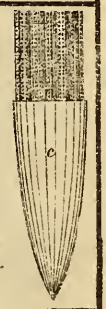
ELLIS DOTY,
TACKLE-BLOCKS.



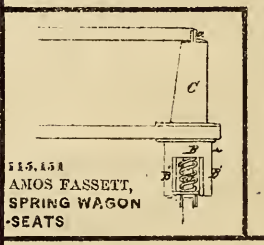
115,451
JOHN N. DURRELL
MACHINES FOR
TAPPING NUTS.



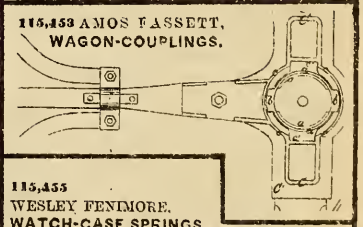
115,452
JACOB EDSON,
DRIVEN WELLS.



115,454
AMOS FASSETT,
SPRING WAGON
-SEATS

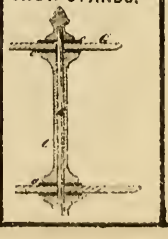


115,453 AMOS FASSETT,
WAGON-COUPLINGS.



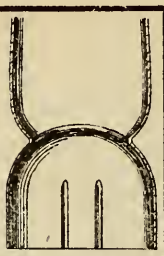
115,455
WESLEY FENIMORE,
WATCH-CASE SPRINGS.

115,456
WILLIAM FISHER
SHOW-STANDS.



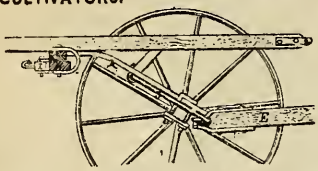
115,457
MARK FLANIGAN,
CONCRETE AND
WOOD
PAVEMENTS.

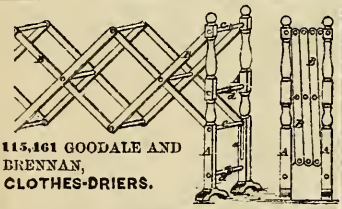
115,458
SAMUEL W. FOWLER,
LAMP-CHIMNEYS.



GEORGE H. GOLTRY
FREDERICK W. HOGARTH,
MEDICAL COMPOUNDS.
115,160

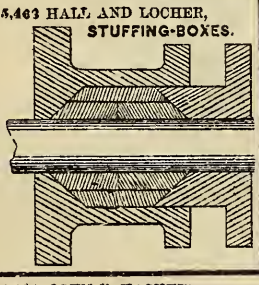
115,459
CONRAD FURST,
CULTIVATORS.





115,461 GOODALE AND BRENNAN,
CLOTHES-DRIERS.

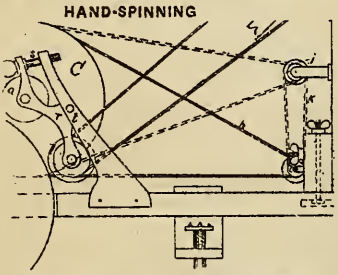
115,463 HALL AND LOCHER,
STUFFING-BOXES.



CANCELED. 115,462

115,464 JOHN F. HASKINS,
ALARM-BATONS.

115,465 WILLIAM P. HATCH,
HAND-SPINNING



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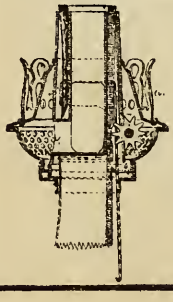
JOHN HEBERLING,
COFFEE-POTS.



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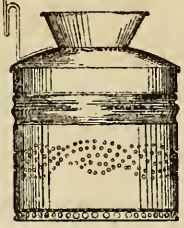
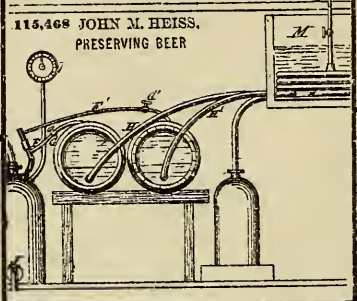
HIRAM W. HAYDEN,
LAMP-BURNERS.

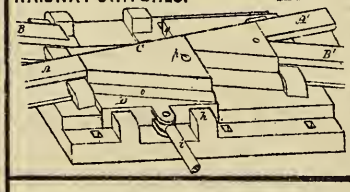


115,468 JOHN M. HEISS,
PRESERVING BEER

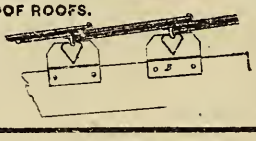


115,469
JOHN JOSEPH HENRY,
THREAD-CUTTERS.

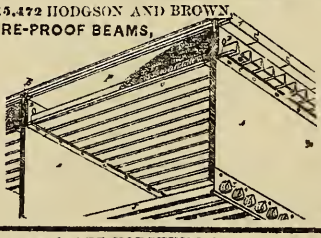
115,470
BENJAMIN HINKLEY,
RAILWAY SWITCHES.



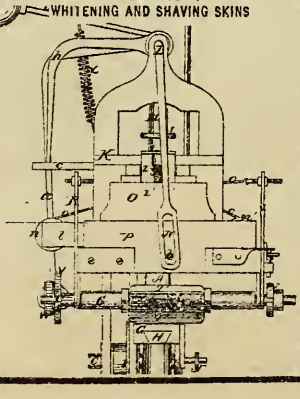
115,471 HODGSON AND BROWN,
FIRE-PROOF ROOFS.

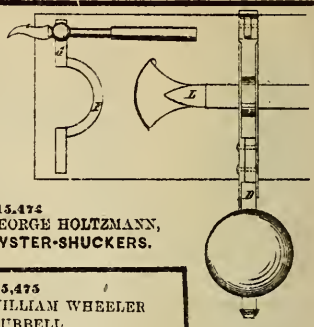


115,472 HODGSON AND BROWN,
FIRE-PROOF BEAMS,



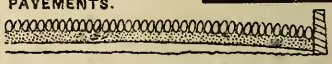
115,473 JABEZ HODSKINSON,
WHITENING AND SHAVING SKINS



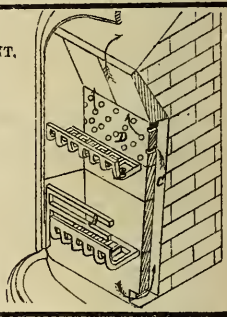


115,474
GEORGE HOLTZMANN,
OYSTER-SHUCKERS.

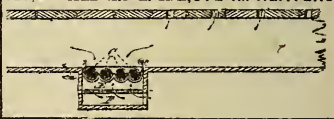
115,475
WILLIAM WHEELER HUBBELL,
PAVEMENTS.



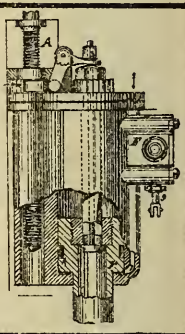
115,476
JAMES G. HUNT,
STOVES AND FIRE-PLACES.



115,477 ALBERT L. IDE, STEAM-HEATERS

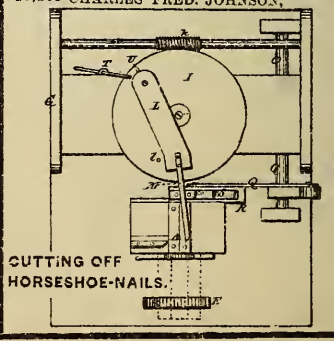


115,478
SIMON INGERSOLL,
VALVE-MOTIONS.



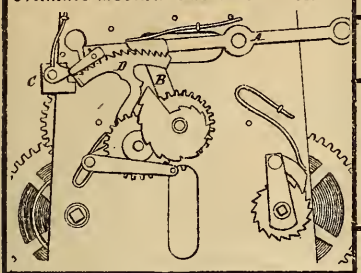
115,479 GEORGE H. IRELAND, SAFES.

115,480 CHARLES FRED. JOHNSON,

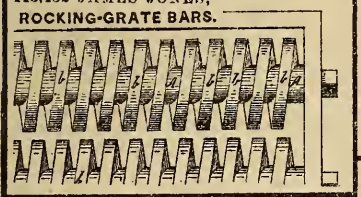


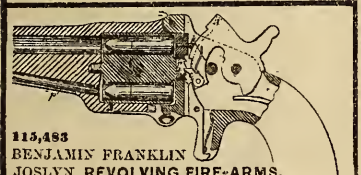
CUTTING OFF HORSESHOE-NAILS.

115,481 GEORGE A. JONES.
STRIKING MECHANISMS OF CLOCKS.



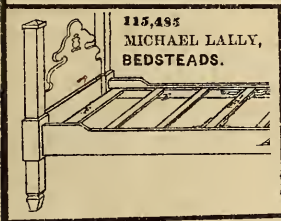
115,482 JAMES JONES,
ROCKING-GRATE BARS.





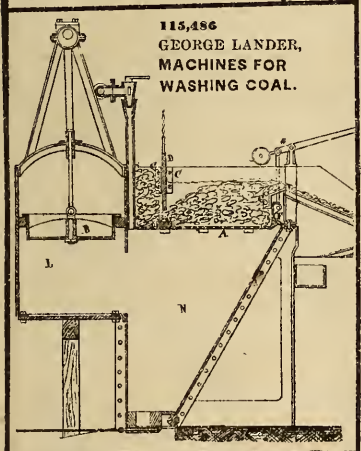
115,483
BENJAMIN FRANKLIN
JOSLYN, REVOLVING FIRE-ARMS.

115,485
MICHAEL LALLY,
BEDSTEADS.



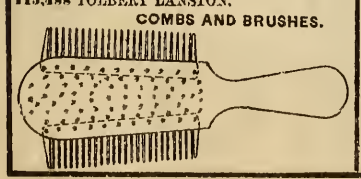
115,484.
MICHAEL KELLER.
STAINING WOOD.

115,486
GEORGE LANDER,
MACHINES FOR
WASHING COAL.



115,487 SKATES.
BEECHER M. LANK.

115,488 TOLBERT LANSTON.
COMBS AND BRUSHES.

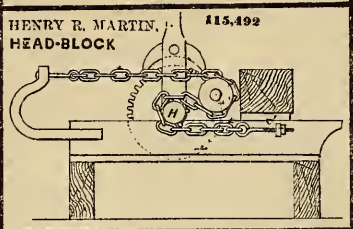


115,489 WILLIAM AUGUSTUS LEGGO,
GRANULATED PHOTOGRAPHS.

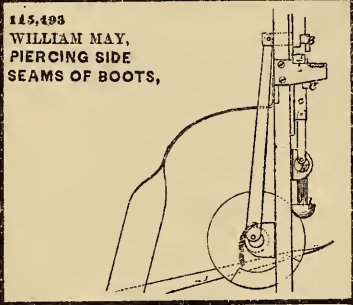
115,490 WILLIAM AUGUSTUS LEGGO,
PROCESSES FOR OBTAINING MOLDS FOR
ELECTROTYPING PURPOSES.

115,491
JOHN MAKECHNEY
ROLLERS FOR WRINGERS.

HENRY R. MARTIN, 115,492
HEAD-BLOCK

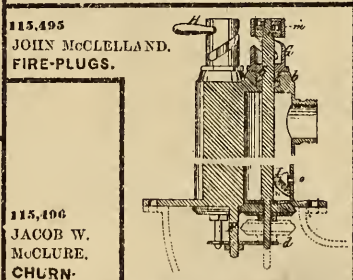


115,493
WILLIAM MAY,
PIERCING SIDE
SEAMS OF BOOTS,

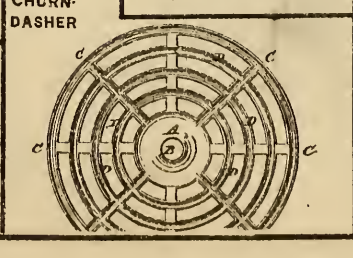


115,494 HARRY W. McALLISTER,
ELECTRIC ADVERTISING
CABINET.

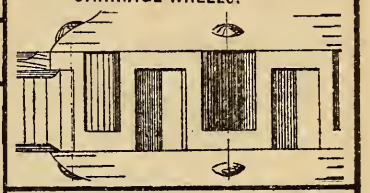
115,495
JOHN McCLELLAND.
FIRE-PLUGS.



115,496
JACOB W.
McCLURE.
CHURN-
DASHER

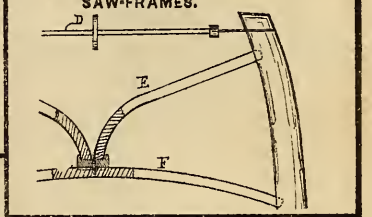


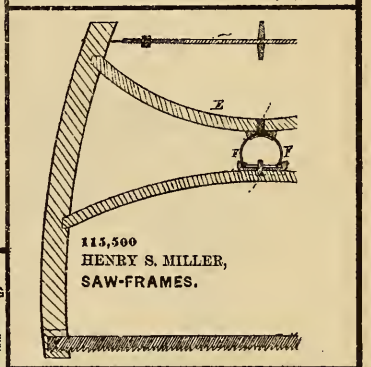
115,497 JOHN McCREERY,
CARRIAGE-WHEELS.



115,498
ISAAC M. MILBANK,
CARTRIDGES.

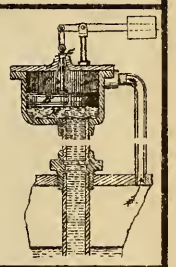
115,499 HENRY S. MILLER,
SAW-FRAMES.



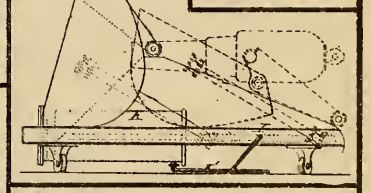


115,500
HENRY S. MILLER,
SAW-FRAMES.

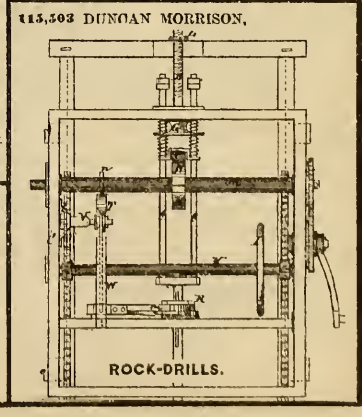
115,501
FRANK MILLWARD,
HIGH-AND-LOW-WATER
INDICATORS



115,502
ALEXANDER
MONCRIEFF,
WORKING
ORDNANCE.

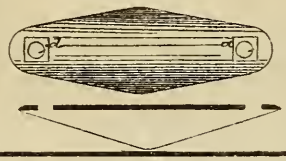


115,503 DUNCAN MORRISON,

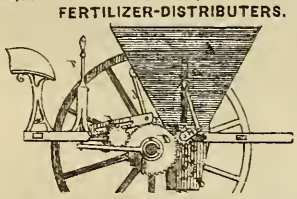


ROCK-DRILLS.

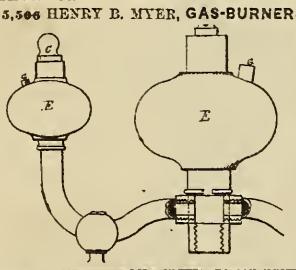
115,504 FRANCIS B. MORSE, FELLY-PLATES.



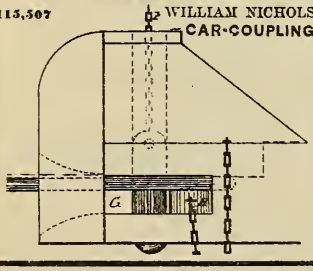
115,505 JOHN A. MORTON, FERTILIZER-DISTRIBUTERS.



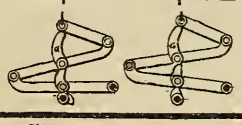
115,506 HENRY B. MYER, GAS-BURNERS.



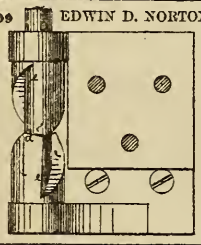
115,507 WILLIAM NICHOLS, CAR-COUPLINGS.



115,508 ARCHIBALD NIMMO, LOOMS.



115,509 EDWIN D. NORTON, HINGES.



115,510 WILLIAM PALMER, CHAIRS FOR RAILROAD CARS.

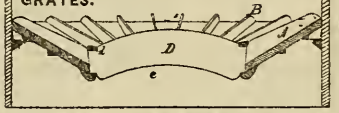
115,511 EDWARD PARRISH, PAPER FOR NAPKINS.

115,512 AHIRA E. PEARL, COMPOUNDS FOR EXTERMINATING VERMIN.

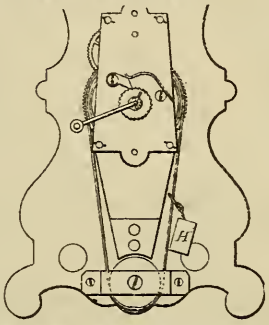
115,513 JOHN PECKHAM, BUCKLES.

115,514 ALOIS PETELER, DUMPING-CARS.

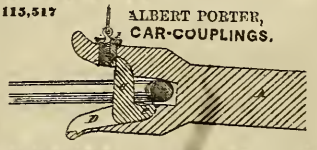
115,515 JAMES FISHER PHELPS, GRATES.



115,516 DAVID T. PITTENGER, MOTIVE POWERS

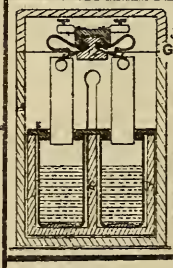


115,517 ALBERT POETER, CAR-COUPLINGS.

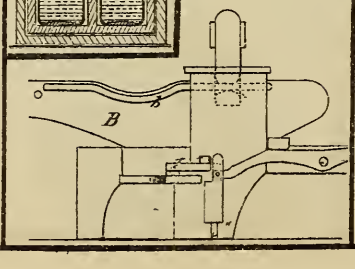


115,518 JAMES W. POWELL, ELECTRO-MAGNETIC MACHINES.

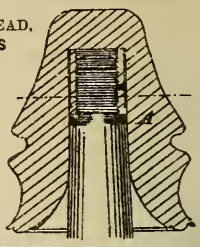
115,519 JAMES W. POWELL GALVANIC BATTERIES



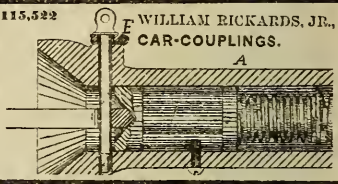
115,520 DAVID I. PRUNER, HORSESHOE-MACHINES.



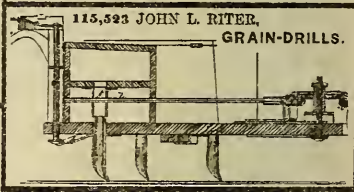
115,521 HORATIO READ, INSULATORS



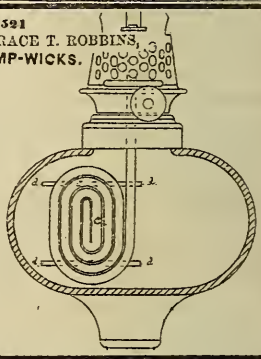
115,522 WILLIAM RICKARDS, JR., CAR-COUPLINGS.



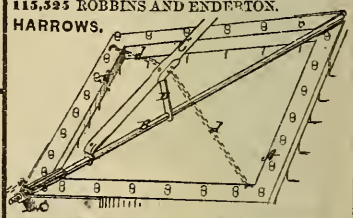
115,523 JOHN L. RITER, GRAIN-DRILLS.



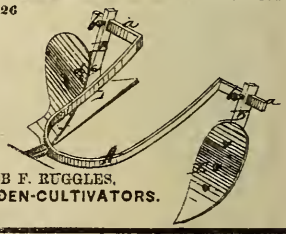
115,524 HORACE T. ROBBINS, LAMP-WICKS.



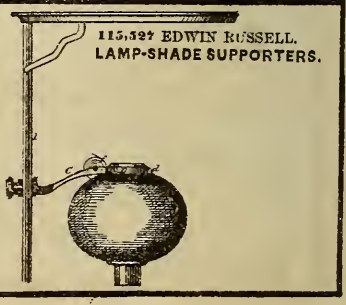
115,525 ROBBINS AND ENDERTON, HARROWS.



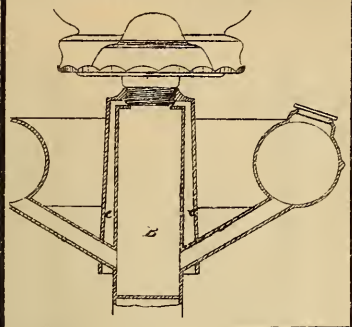
115,526 CALEB F. RUGGLES, GARDEN-CULTIVATORS.



115,527 EDWIN RUSSELL, LAMP-SHADE SUPPORTERS.

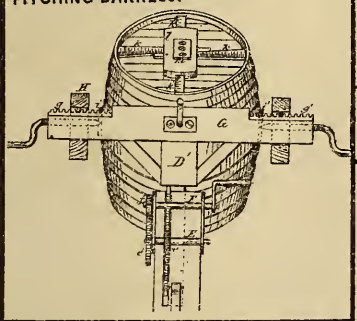


115,528 MARKS SAMUELS, LAMPS.



115,529
CHARLES SCHLEICHER,
NEEDLE-WRAPPERS.

115,530 LOUIS SCHULZE,
PITCHING BARRELS.



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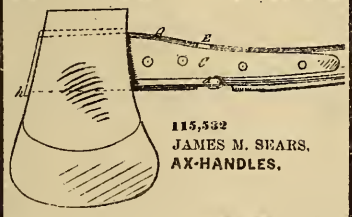
EDWARD O. SCHWAGERL,
TREE-BOXES.



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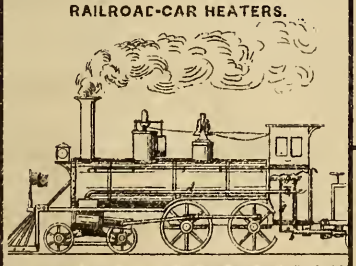
JAMES M. SEARS,
AX-HANDLES.

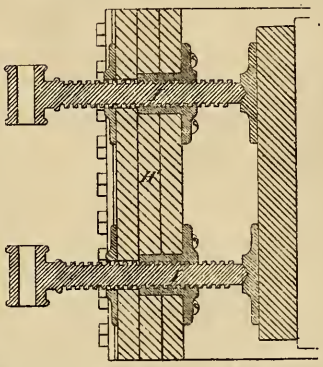
115,533 JOSEPH SHACKLETON,
RAILROAD-CAR HEATERS.



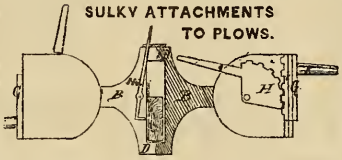
115,534
CHARLES D. SHRIEVES,
SHADE ROLLERS AND FIXTURES.

115,535
SMITH AND SMITH,
BUCKLES.

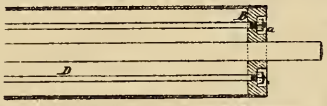
115,536
SMITH AND WINSTON,
MAKING ENDS OF BURIAL-CASES.



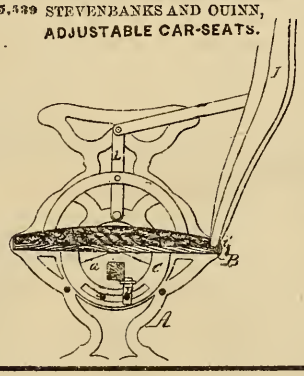
115,537 GEORGE M. SMITH,
SULKY ATTACHMENTS TO PLOWS.



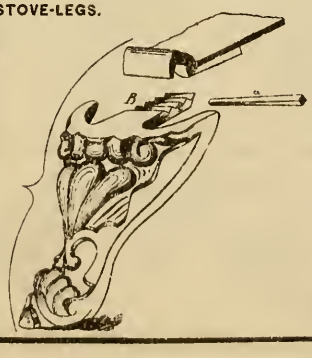
115,538 HENRY F. SNYDER,
ROLLS FOR GANG SAW-MILLS.



115,539 STEVENBANKS AND QUINN,
ADJUSTABLE CAR-SEATS.



115,540 STUART AND BRIDGE,
STOVE-LEGS.



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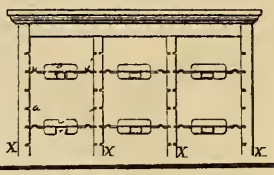
JAMES SWAN,
AUGERS.

115,542 CONSTANT S. TREVITT,
DOCUMENT-CASES.



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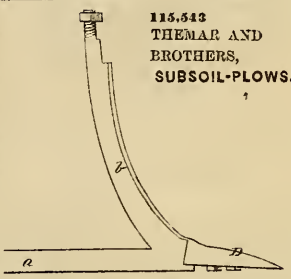
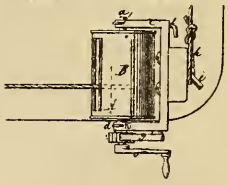
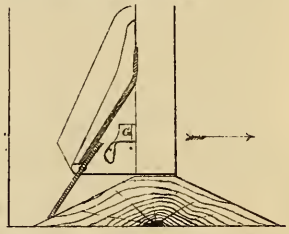
THEMAR AND BROTHERS,
SUBSOIL-PLOWS.



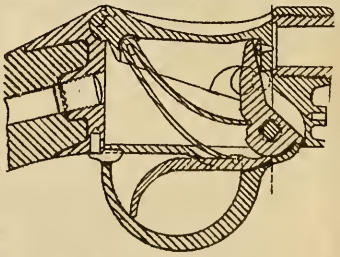
115,544 ANDREW TURNBULL,
HOUSINGS FOR CLOTHES-LINES.

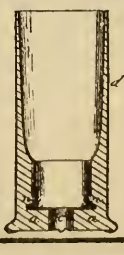


115,545 AMOS M. ULMER,
WEATHER-STRIPS.



115,546 FRIEDRICH VON MARTINI,
BREECH-LOADING FIRE-ARMS.

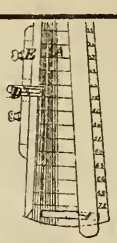




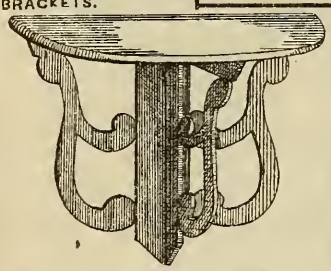
115,548
CHARLES S. WELLS,
CARTRIDGES.

115,547 ROBERT AMBROSE WALTON,
MEDICINES FOR THE CURE OF DIARRHEA.

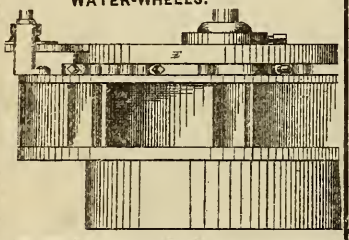
115,549
DAVID C. WETSELL,
AXLE-GAGES.



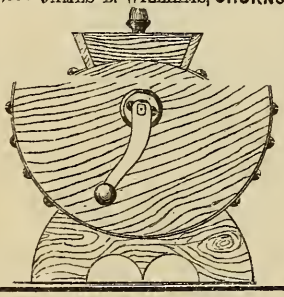
115,550
JAMES M. WHITING.
BRACKETS.



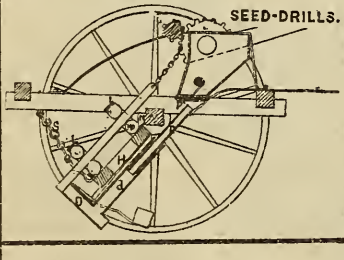
115,551 TITUS WHITMORE,
WATER-WHEELS.



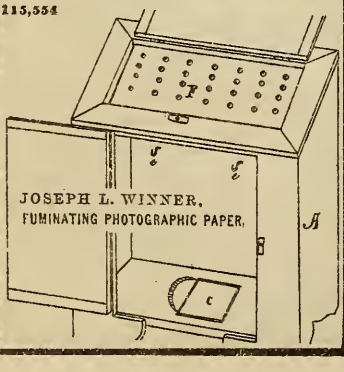
115,552 JAMES B. WILLIAMS, CHURNS.



115,553 GEORGE W. MILLNER,
SEED-DRILLS.

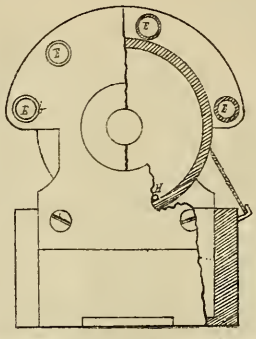


115,554

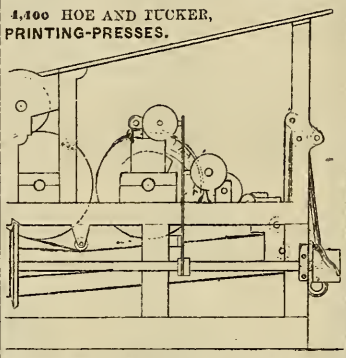


JOSEPH L. WINNER,
FUMINATING PHOTOGRAPHIC PAPER.

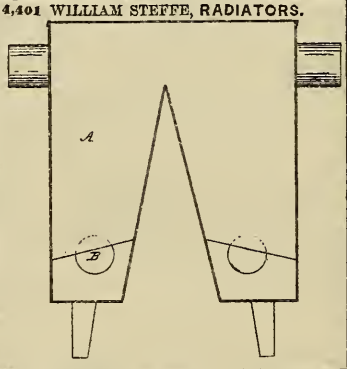
4,399 SAMUEL D. GILSON,
EVAPORATING SALT BRINES.



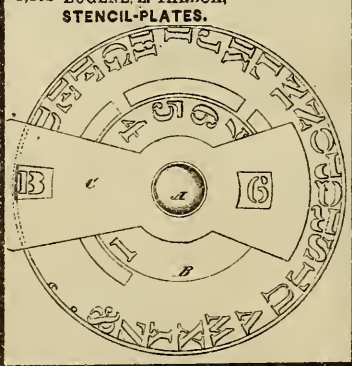
4,400 HOE AND TUCKER,
PRINTING-PRESSES.



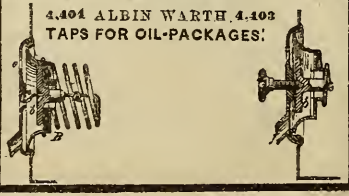
4,401 WILLIAM STEFFE, RADIATORS.



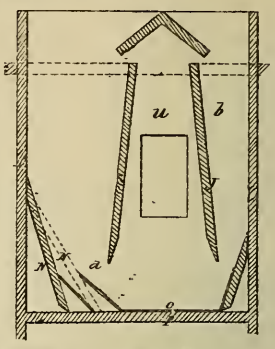
4,402 EUGENE L. TARBOX,
STENCIL-PLATES.



4,404 ALBIN WARTH. 4,403
TAPS FOR OIL-PACKAGES.

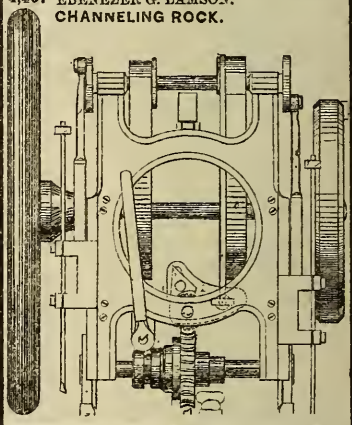


4,405 HENRY EDDY.
CRIBS FOR HORSES.

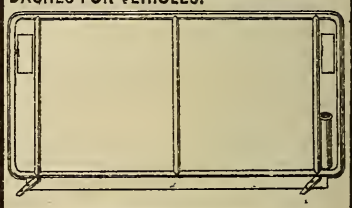


4,406 JAMES H. GRIDLEY,
LOCKING-WASHERS FOR NUTS.

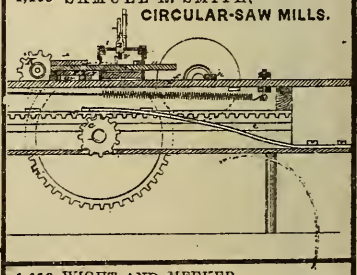
4,407 EBENEZER G. LAMSON.
CHANNELING ROCK.



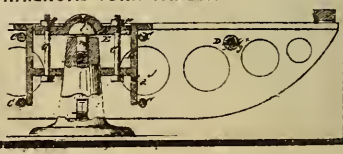
4,408 GEORGE M. PETERS,
DASHES FOR VEHICLES.



4,409 SAMUEL R. SMITH,
CIRCULAR-SAW MILLS.



4,410 WIGHT AND MEEKER,
RAILROAD TURN-TABLES.

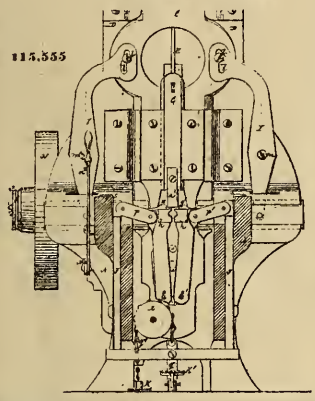


ILLUSTRATIONS OF PATENTS
ISSUED FROM

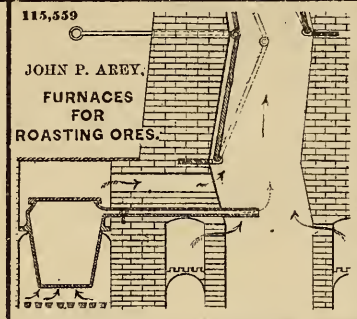
THE UNITED STATES PATENT OFFICE

JUNE 6, 1871.

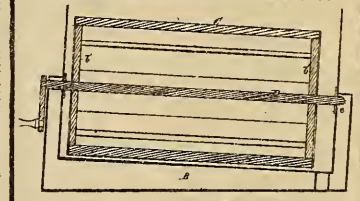
JOHN R. ABBE,
BOLT-HEADING MACHINES.
115,555

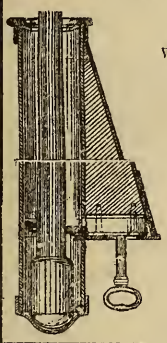


115,559
JOHN P. AREY,
FURNACES FOR ROASTING ORES.



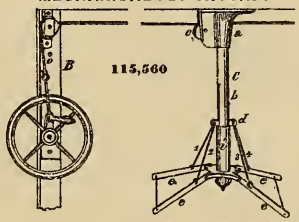
115,561 GEORGE C. BRIGGS,
APPARATUS FOR DRYING SALT.

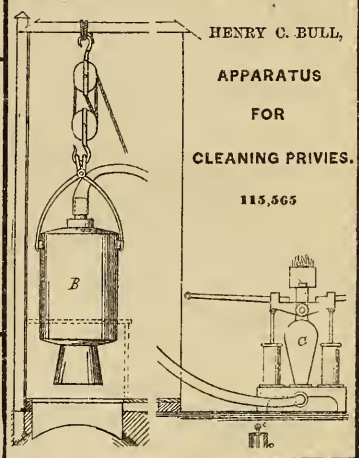




WILLIAM R. ALLEN,
WHIP-SOCKETS.
115,558

HENRY E. AUGHINBAUGH,
MECHANICAL FLY-BRUSHES.
115,560





HENRY C. BULL,
APPARATUS FOR CLEANING PRIVIES.
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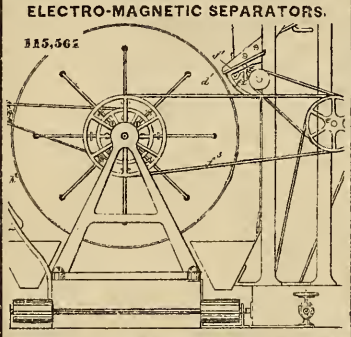
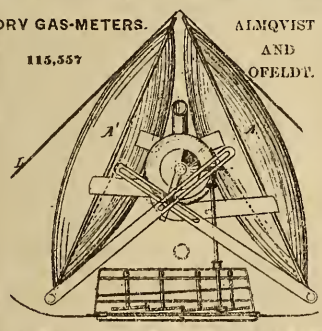
BALCH AND NELSON,
ELECTRO-MAGNETIC SEPARATORS.
115,562

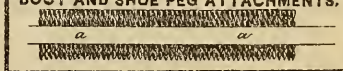


115,566 CAMPBELL AND WOODWARD,
BOOTS AND SHOES.

DRY GAS-METERS.
115,557
ALMQVIST AND OFELDT.



115,567 CAMPBELL AND WOODWARD,
BOOT AND SHOE PEG ATTACHMENTS.



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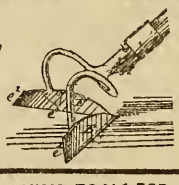
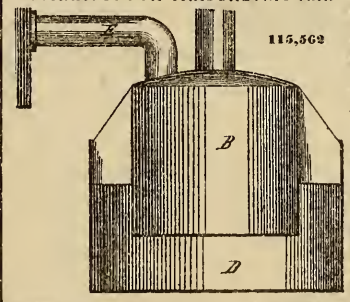
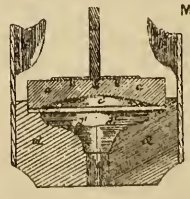
JOHN S. CARROLL,
COTTON-HOES.



JOHN F. BARKER,
APPARATUS FOR CARBURETING AIR.
115,562

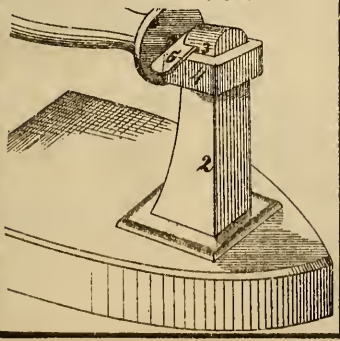


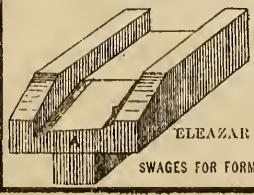
115,569 DAVID CHALLINOR, TOOLS FOR MOLDING GLASS.



115,570 CORNELIUS Y. CHAPIN
VARNISHES FOR COATING AND WATER-PROOFING.

115,058, WILLIAM A. ANDREWS
SMOOTHING-IRONS.





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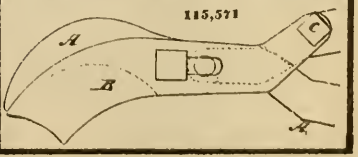
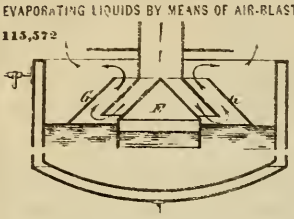
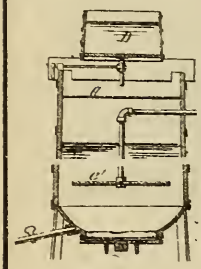
ELEAZAR BLESS,
SWAGES FOR FORMING CUTTERS

JOHN CHRISTY, PRUNING-SHEARS.
115,571



GEORGE CLARK,
EVAPORATING LIQUIDS BY MEANS OF AIR-BLASTS.
115,572





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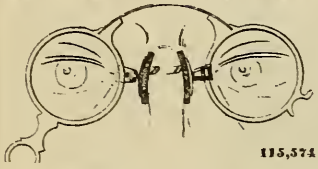
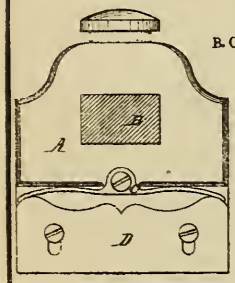
GEORGE CLARK,
PURIFYING BRINE
AND OTHER LIQUIDS.

ISAAC CLEMENTS. EYE-GLASSES.

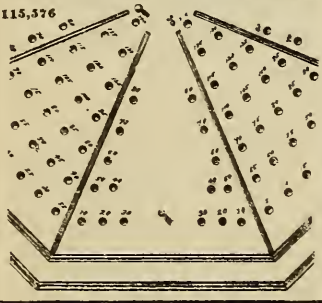


115,574

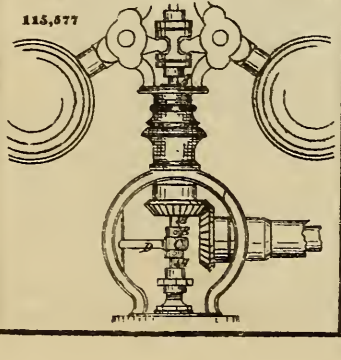
B. CODDINGTON.
TINNERS'
SWAGES.
115,575



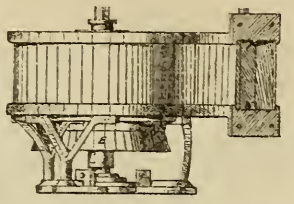
GEORGE A. COFFIN PARLOR GAMES.
115,576



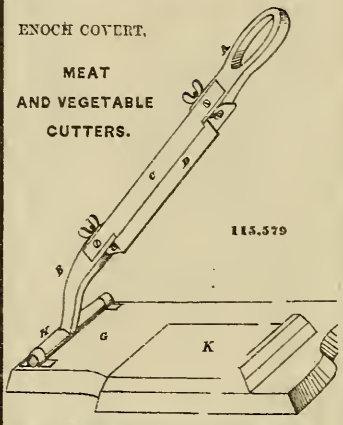
W. A. COGSWELL. GOVERNOR-VALVES
115,577



ASHLY DODGE COLE,
115,578
WATER-WHEELS.



ENOCH COVERT,
MEAT
AND VEGETABLE
CUTTERS.



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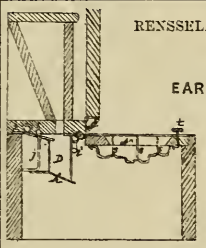
RENSSELAER A. COWELL.
EARTH-CLOSETS.



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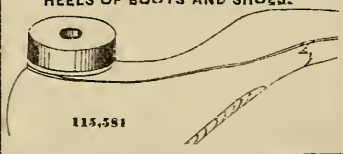
ALBERT O. CRANE,
HEELS OF BOOTS AND SHOES.



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JONAS P. CURTISS, SCREW-DRIVERS.
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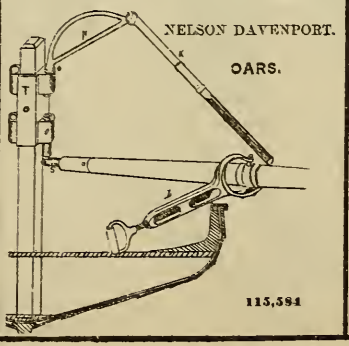
DANN AND DANN,
115,583
WAGON-SEATS.

NELSON DAVENPORT.
OARS.



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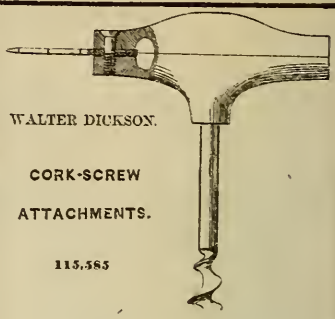
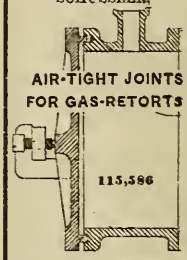
WALTER DICKSON.
CORK-SCREW
ATTACHMENTS.
115,585



DIETERICH
AND
SCHÜSSLER,
AIR-TIGHT JOINTS
FOR GAS-RETORTS



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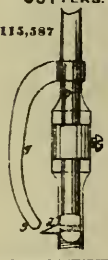
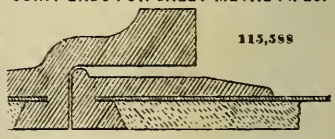
RUFUS H. DORN,
CIRCULAR
CUTTERS.
115,587



JOHN T. FANNING,
JOINT ENDS FOR SHEET-METAL PIPES.



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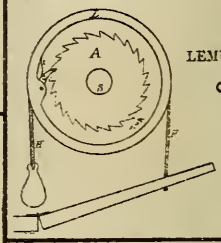
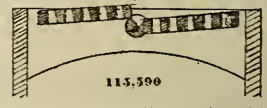
LEMUEL S FITHIAN,
CONVERTING
MOTION.
115,589



FLOOD AND BROWN, STOVE-GRATES.



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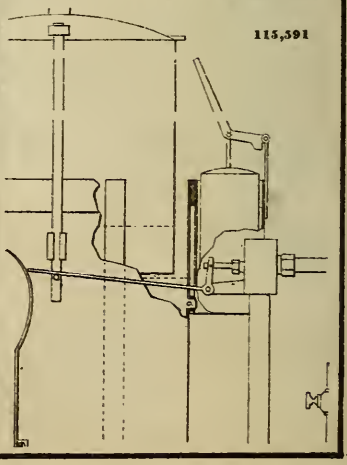
THOMAS B. FOGARTY, GAS-MACHINES.
115,591



THOMAS B. FOGARTY, GAS-MACHINES.

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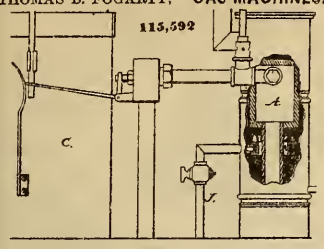
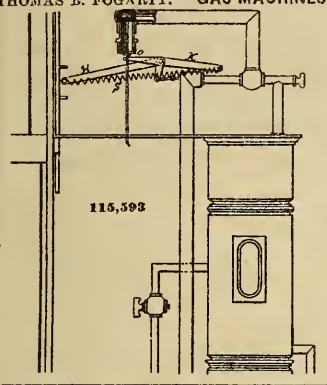


THOMAS B. FOGARTY, GAS-MACHINES.



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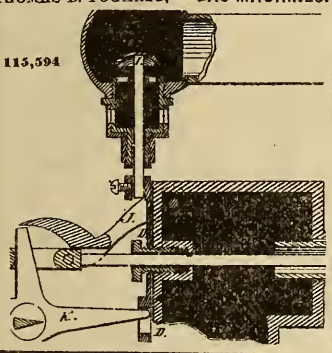
THOMAS B. FOGARTY, GAS-MACHINES.

115,594



THOMAS B. FOGARTY, GAS-MACHINES.

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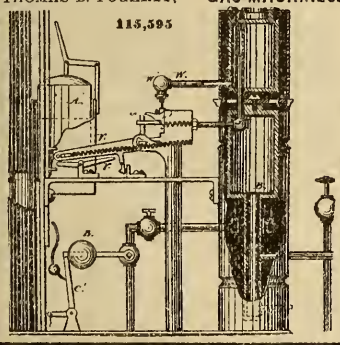
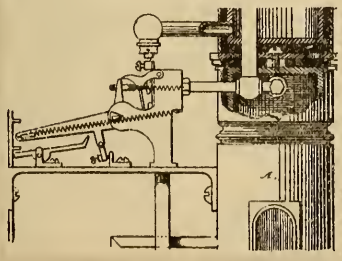
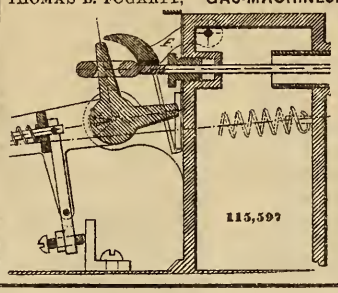


THOMAS B. FOGARTY, GAS-MACHINES.

115,596



THOMAS B. FOGARTY, GAS-MACHINES.



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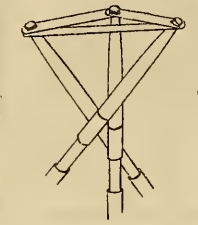
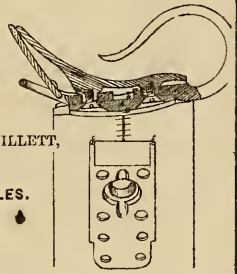


HENRY FREE,

CAMP-STOOLS.

115,598

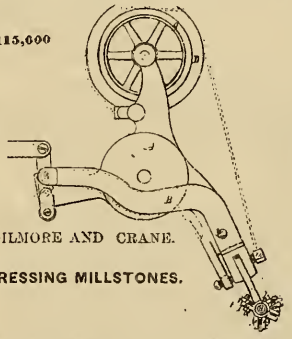
115,599



GEORGE D. GILLETT,

GIG-SADDLES.

115,600



GILMORE AND CRANE.

DRESSING MILLSTONES.

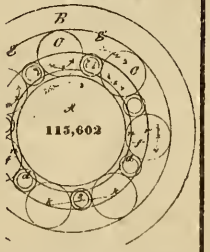
L. A. GRILL,

BILLIARD TABLES.

115,601

ALEX. W. HALL,

ANTI-FRICTION BEARINGS



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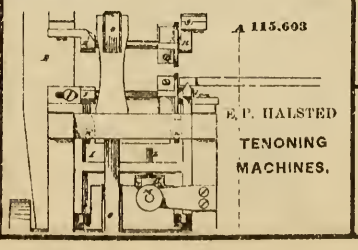


115,603

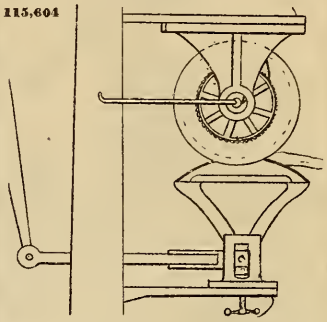
E. P. HALSTED

TENONING MACHINES.

HUGH HAMILL.

IRONING. AND SMOOTHING MACHINES.

115,604



JACOB F. HARLY,

MILK-COOLERS.

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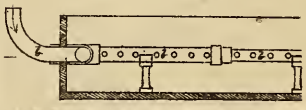
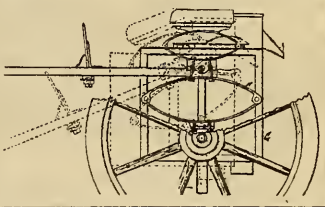


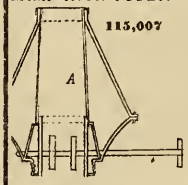
115,606 JOHN HARRIS, MILK-CARTS.



EDGAR K. HAYNES,

LAMP-WICK TUBES.

115,607



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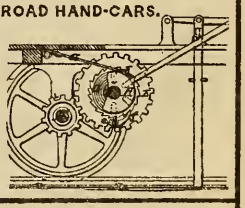
E. K. HAYNES,

LAMP-BURNERS.

JOHN C. HEARNE,

RAILROAD HAND-CARS.

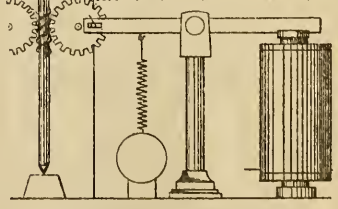
115,609



115,610

STEPHEN C. HENDRICKSON

RAILROAD DANGER-SIGNALS.

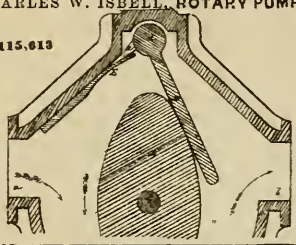


115,611 DANIEL HITCHINGS,

MODES OF EXPANDING WHEELS.

CHARLES W. ISBELL, ROTARY PUMPS.

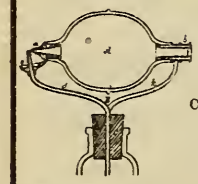
115,613



115,612
WILLIAM HOGE AND JOSEPH R. PECK,
ENAMELED FLEXIBLE METALLIC PLATES

THOMAS ISHERWOOD. LOOM-SHUTTLES.

115,614

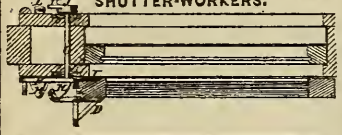


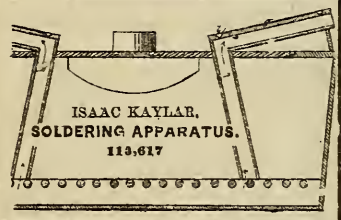
115 615

CHARLES P. JANES.

ATOMIZERS.

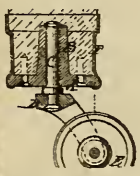
JAMES W. JEDKINS
SHUTTER-WORKERS. 115,616



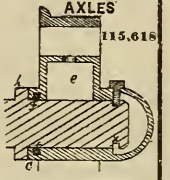


ISAAC KAYLAR,
SOLDERING APPARATUS.
113,617

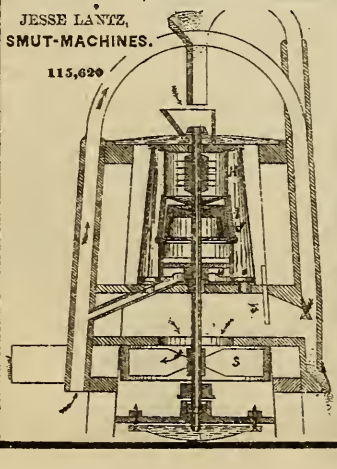
JOSEPH KINTZ,
CASTERS.
115,619



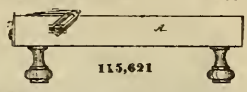
KENWORTHY
AND
POLLITT,
LUBRICATING
AXLES
115,618



JESSE LANTZ,
SMUT-MACHINES.
115,620



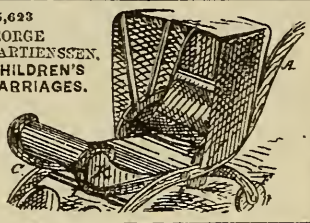
ROBERT G. LOWEY,
BOOK-BINDING MACHINES.



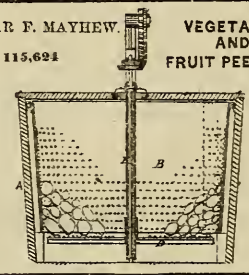
115,621

115.622 ROBERT B. LUCAS AND
WILLIAM W. LUCAS
SEPARATING OIL AND NAPHTHA FROM PARAFFINE-WAX

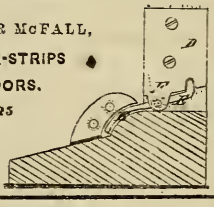
115,623
GEORGE
MARTIENSSEN,
CHILDREN'S
CARRIAGES.



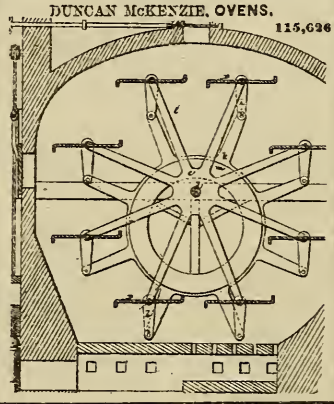
OSCAR F. MAYHEW. VEGETABLE
AND
FRUIT PEELERS.
115,624



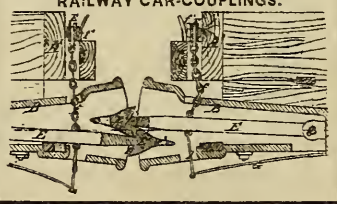
SYLVESTER McFALL,
WEATHER-STRIPS
FOR DOORS.
115,625



DUNCAN McKENZIE, OVENS.
115,626



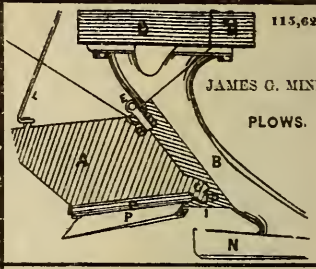
115,627 EDWARD D. MEIER,
RAILWAY CAR-COUPLINGS.



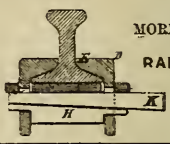
MAX MILLER,
TOY-WHISTLES.
115,628

115,629

JAMES G. MINER,
PLOWS.



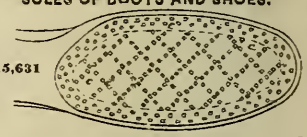
MORRIS AND GREGORY,
RAILWAY-RAIL JOINTS.



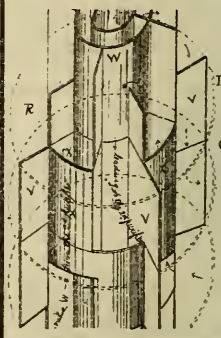
115,630

ALFRED A. MOSS.
SOLES OF BOOTS AND SHOES.

115,631

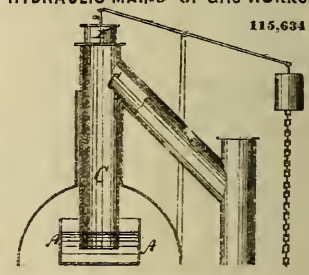


R MUNZINGER,
CENTER-SEALS
FOR
GAS-WORKS.
115,632

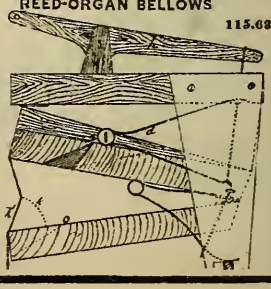


HIAL H. NEWTON,
TIDY-PINS.
115,633

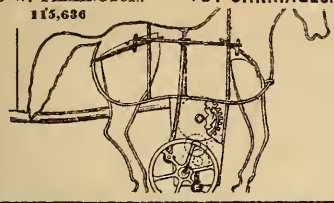
ALFRED ODIORNE.
HYDRAULIC MAINS OF GAS-WORKS.
115,634



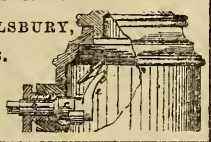
PERRY AND PERRY,
REED-ORGAN BELLOWS
115,635



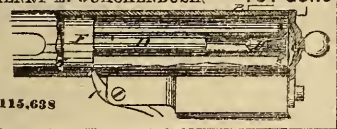
J. W. PILKINGTON. TOY-CARRIAGES.
115,636



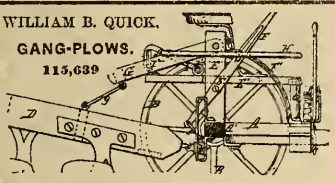
JOSEPH L. PILLSBURY, HYDRANTS.
115,637

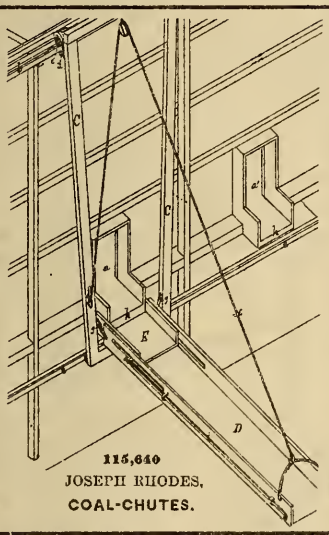


HENRY M. QUACKENBUSH. TOY GUNS
115,638



WILLIAM B. QUICK. GANG-PLOWS.
115,639





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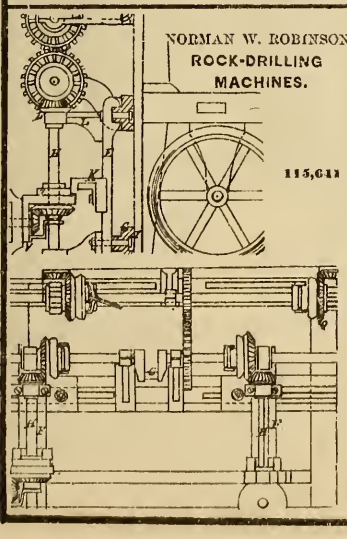
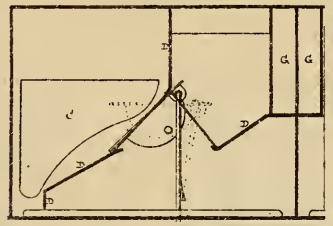
JOSEPH RHODES, COAL-CHUTES.

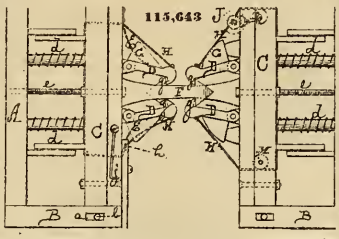
NORMAN W. ROBINSON, ROCK-DRILLING MACHINES.
115,641



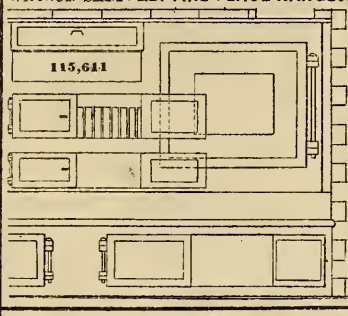
PHILIP ROLLHAUS, JR.
115,642 RANGES.



RUPP AND OTT. CAR-COUPLINGS.
115,643

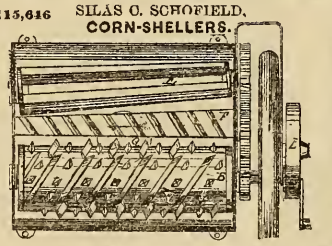


WATSON SANFORD. FIRE-PLACE RANGES.
115,644

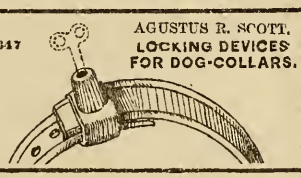


JOSEPH B. SARGENT, DOOR-BOLTS.
115,645

115,646 SILAS O. SCHOFIELD, CORN-SHELLERS.



115,647 AGUSTUS R. SCOTT, LOCKING DEVICES FOR DOG-COLLARS.

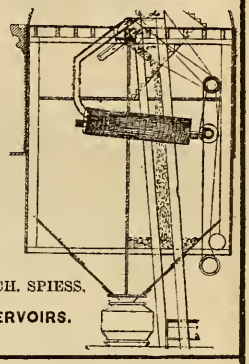


115,648
NATHAN J. SIMONDS, SHOES.

115,649
ROBERT SLEETH,
METALLIC ROLLS FOR ROLLING IRON, STEEL.

OLNEY L. SMITH. ATTACHING KNOBS 115,650

VIVIAN K. SPEAR, BURNISHING BOOT AND SHOE HEELS.
115,651



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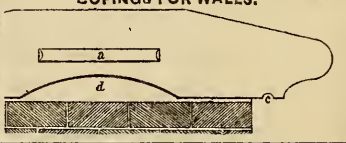
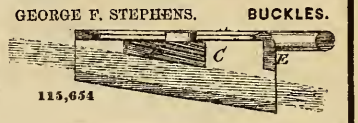
FREDERICK CH. SPIESS, MALT-RESERVOIRS.

DANIEL M. SPROGLE. COPINGS FOR WALLS. 115,653

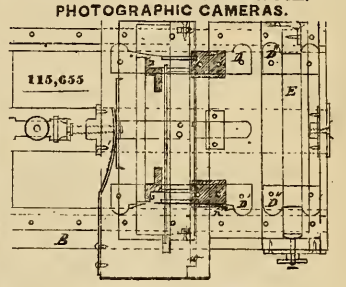


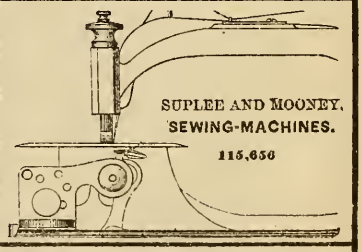
GEORGE F. STEPHENS. BUCKLES.



115,654

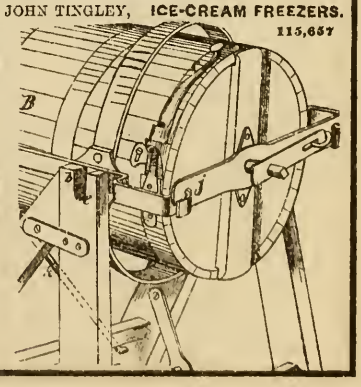
JOHN STOCK AND JACOB STOCK. PHOTOGRAPHIC CAMERAS.
115,655



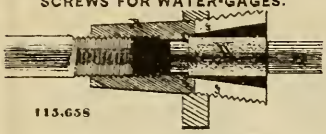


SUPLEE AND MOONEY, SEWING-MACHINES.
115,656

JOHN TINGLEY, ICE-CREAM FREEZERS.
115,657



CHARLES TIVNAN,
SCREWS FOR WATER-GAGES.



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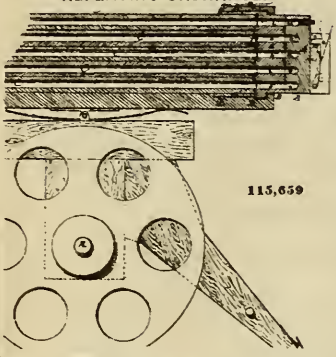
ALFRED H. TOWNSEND,
REPEATING-ORDNANCE.



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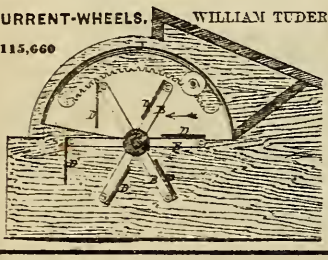
CURRENT-WHEELS. WILLIAM TUDER.
115,660

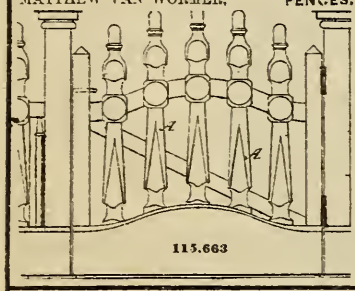


ARCHIBALD TURNER,
SEWING-SILKS, THREADS, &c.

115,661

E. F. UNDERHILL,
VINE-LOCKS.
115,662

MATTHEW VAN WORMER, FENCES.



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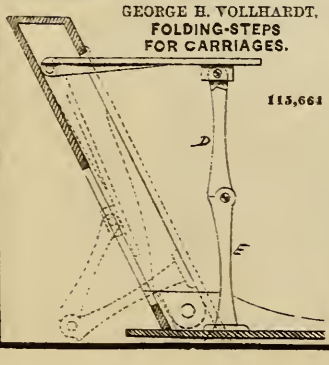
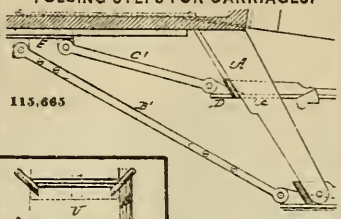
GEORGE H. VOLLHARDT,
FOLDING-STEPS
FOR CARRIAGES.



115,664

EDWARD WELLS,
FOLDING-STEPS FOR CARRIAGES.



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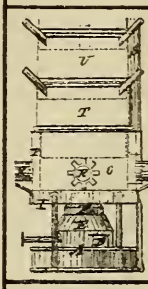
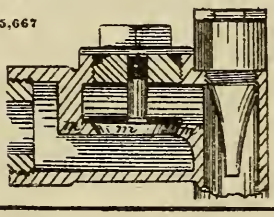
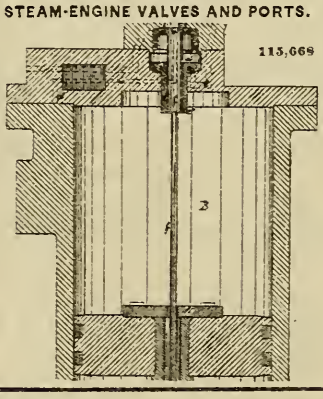


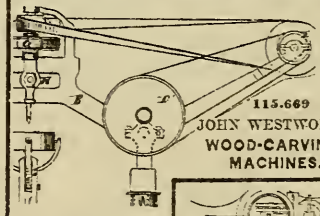
HENRY F. W. WESCHE.
GAS-HEATERS.
115,666

GEORGE WESTINGHOUSE.
STEAM-POWER CAR-BRAKE
115,667



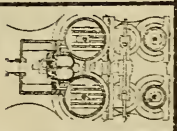
GEORGE WESTINGHOUSE,
STEAM-ENGINE VALVES AND PORTS.
115,668





115,669
JOHN WESTWORTH,
WOOD-CARVING
MACHINES.

N. W. WHEELER,
STEAM
PUMPING-ENGINES.
115,670



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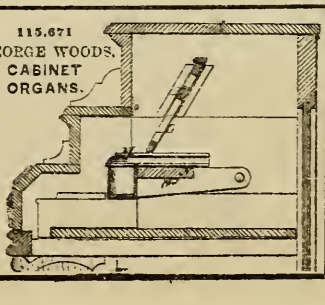
GEORGE WOODS,
CABINET
ORGANS.



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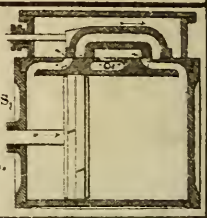
HENRY W. ADAMS,
STEAM-ENGINES.



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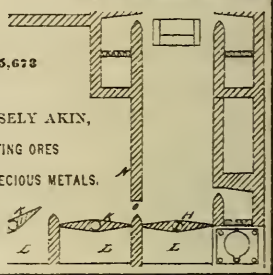
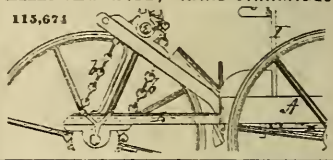
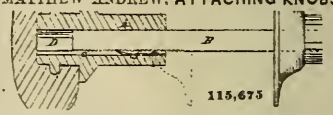
JONAS SELY AKIN,
ROASTING ORES
OF THE PRECIOUS METALS.



ALLEN AND BOND, HAND-CARRIAGES.
115,674

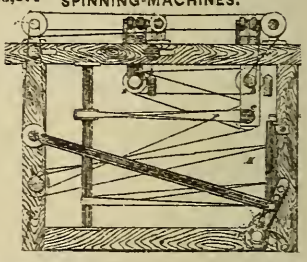


MATTHEW ANDREW, ATTACHING KNOBS

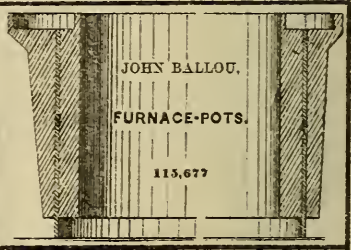


115,675

BALLARD AND BALLARD,
SPINNING-MACHINES.
115,676



JOHN BALLOU,
FURNACE-POTS.
115,677



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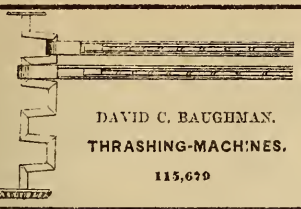
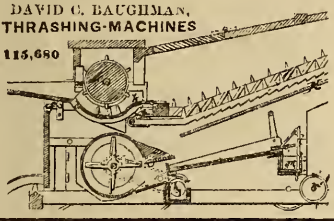
WILLIAM H. BARWICK,
PIPE-WRENCHES.

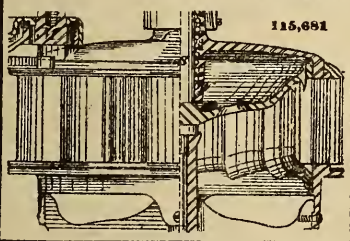


DAVID C. BAUGHMAN.
THRASHING-MACHINES.
115,679

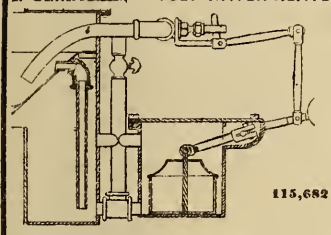
DAVID C. BAUGHMAN,
THRASHING-MACHINES
115,680



BAYLEY AND CROWELL. WATER-WHEELS.
115,681



R BERRYMAN, FEED-WATER HEATERS



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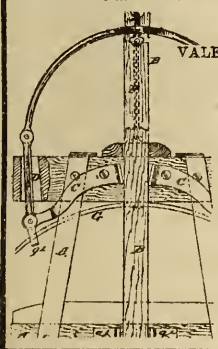
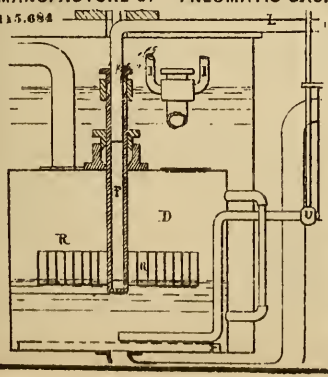
VALENTINE C. BLAIR,
ELEVATORS.

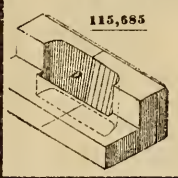


115,683

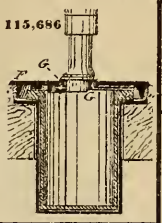
HOMER BLOOMFIELD,
MANUFACTURE OF PNEUMATIC GAS.
115,684



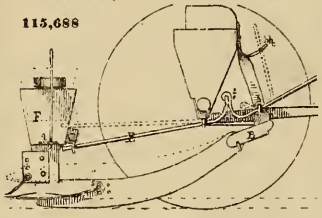
NICHOLAS BOCH,
BUILDING-BLOCKS.
115,685



JAMES A. BOWEN,
INKSTANDS.
115,686



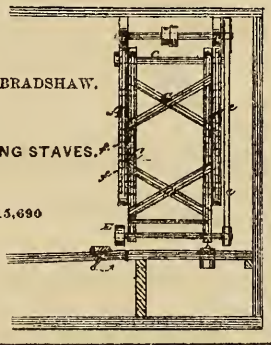
BOWMAN AND SELBY,
PLANTERS, AND CULTIVATORS.
115,688



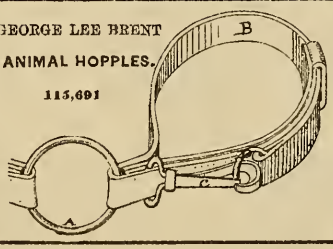
115,687
JAMES W. BOWER,
COMPOUNDS FOR COVERING COFFINS.

115,689
THOMAS W. BRACHER,
HAT LININGS AND TIPS.

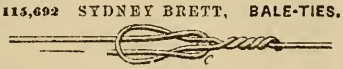
HUGH BRADSHAW.
CROZING STAVES.
115,690



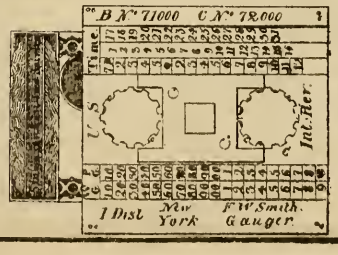
GEORGE LEE BRENT
ANIMAL HOPPLES.
115,691



115,692 SYDNEY BRETT, BALE-TIES.



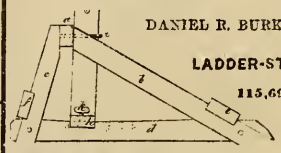
FRANKLIN W. BROOKS,
115,692 STAMP-CANCELERS.



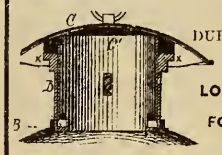
115,694
WILLIAM R. BUNNELL.
COMPOSITIONS FOR STEAM-PACKINGS.

115,695 BENJAMIN S. BURCH,
COMBINATION TOOLS.

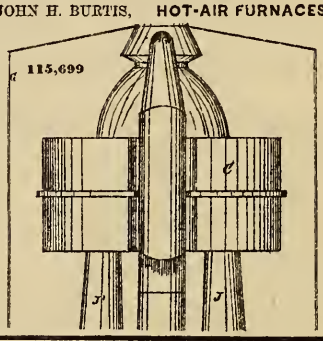
DANIEL R. BURKHOLDER.
LADDER-STANDS.
115,696



DURRANT BURNETT,
115,697
LOCKING-COVERS
FOR MILK-CANS.



JOHN H. BURTIS, HOT-AIR FURNACES.
115,699



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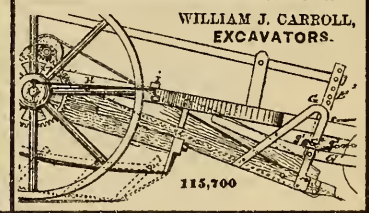
BENJAMIN F. BURROUGHS.
COMPOUNDS OR COUGH-SIRUPS.

WILLIAM J. CARROLL,
EXCAVATORS.



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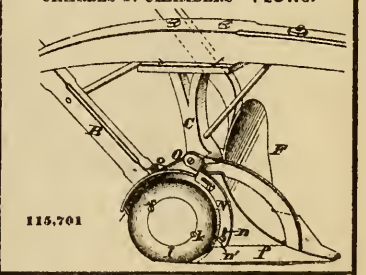
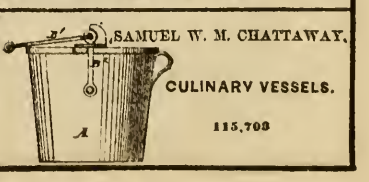
CHARLES F. CHAMBERS PLOWS.



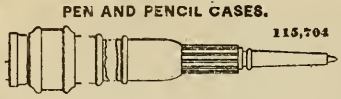
115,701

GEORGE CHAPMAN.
BOLT-HEADING MACHINES.
115,702

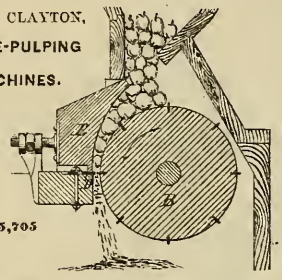
SAMUEL W. M. CHATTAWAY,
CULINARY VESSELS.
115,703



JAMES M. CLARK,
PEN AND PENCIL CASES.
115,704



GREGG CLAYTON,
APPLE-PULPING MACHINES.



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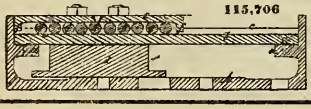
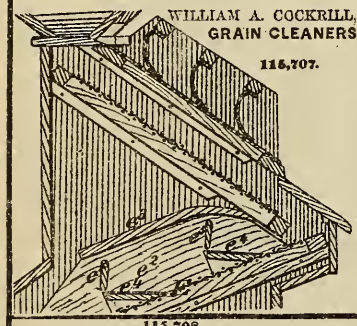
JOSEPH M. COALE. SLIDE-VALVES.
115,706

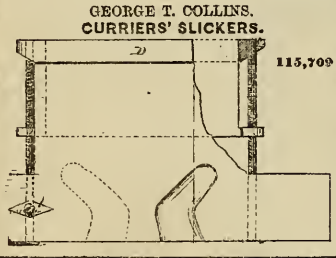


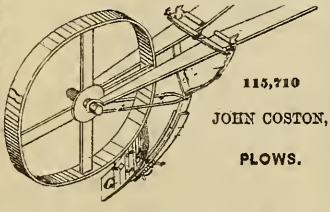
WILLIAM A. COCKRILL,
GRAIN CLEANERS
115,707.



115,708
ANDREW NORTON COLE,
SEPARATING OIL FROM COTTON-WASTE.

GEORGE T. COLLINS,
CURRIERS' SLICKERS.
115,709





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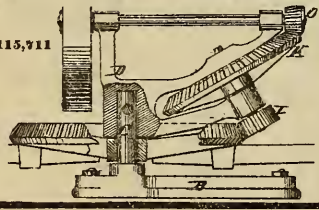
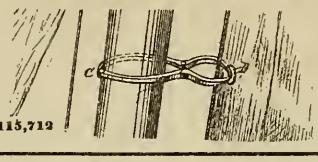
JOHN COSTON,
PLOWS.

DAVID D. CRAIG, HORSE-POWERS.
115,711



DAVID CROWELL, JR., HANKS FOR SAILS.



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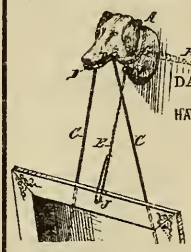
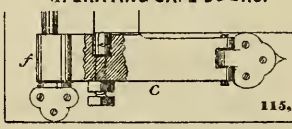


DAVID CROWELL, JR.,
HANGING LOOKING-GLASSES AND PICTURES.
115,713

GEORGE L. DAMON,
OPERATING SAFE-DOORS.

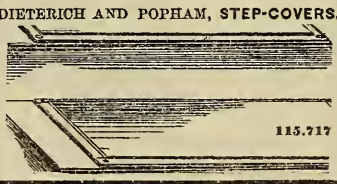


115,714

IRA DEYO,
BEDSTEADS.
115,716

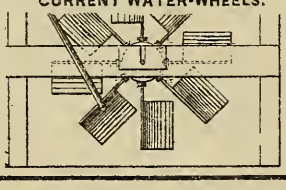
W. C. DAVOL,
HOSE-LEAK STOPPERS.
115,715

DIETERICH AND POPHAM, STEP-COVERS.

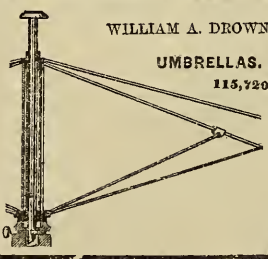


115,717

115,718 JOHN F. M. DOAN.
CURRENT WATER-WHEELS.



WILLIAM A. DROWN, JR.,
UMBRELLAS.
115,720

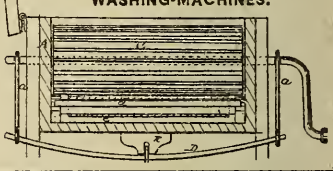


115,719
JAMES O. DRAPER.
SOAPS FOR CLEANSING THE TEETH.

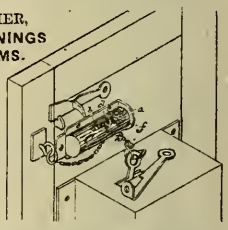
F. W. DUSTIN. WASHING-MACHINES.
115,721

ROBERT HENRY EDDY,
SUSPENDERS.
115,722

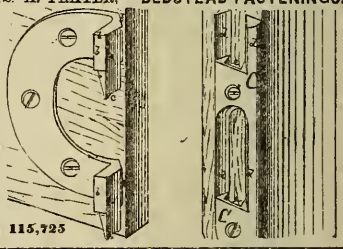
115,723 WILLIAM N. FAUCITT.
WASHING-MACHINES.



OSCAR FISHER,
DOOR-FASTENINGS AND ALARMS.
115,724

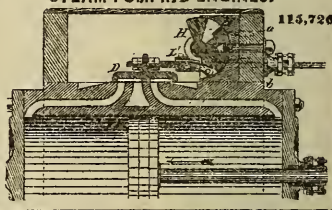


S. A. FRAYER. BEDSTEAD-FASTENINGS.

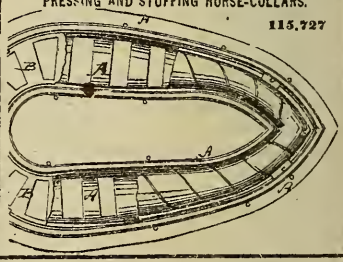


115,725

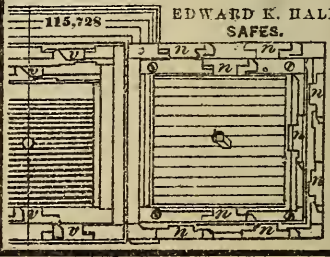
LUCIEN M. GILBERT.
STEAM PUMPING-ENGINES.
115,726



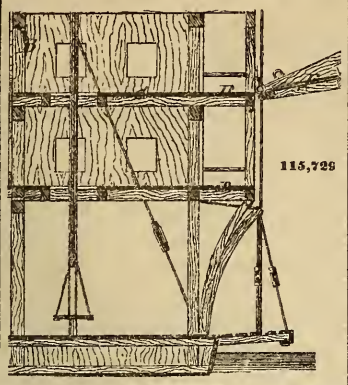
WILLIAM GUILFOYLE.
PRESSING AND STUFFING HORSE-COLLARS.
115,727



115,728 EDWARD K. HALL.
SAFES.



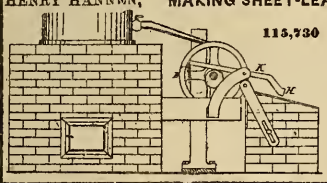
EDWIN W. HALLIDAY, WHARF-BOATS.



115,729

HENRY HANNEN, MAKING SHEET-LEAD.

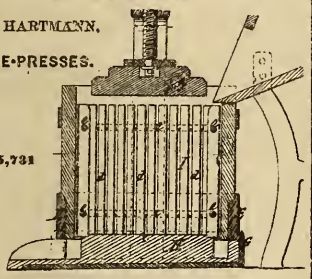
115,730



C F HARTMANN,

WINE-PRESSES.

115,731



HARTZELL AND REIFSNEIDER,

BED-LOUNGES.

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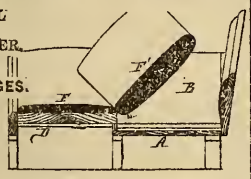
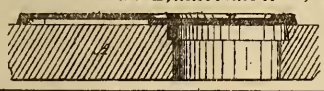


WILLIAM O. HASKELL, INKSTANDS. 115,733



FREDERICK E. HOFFMANN, BRICK-KILNS.

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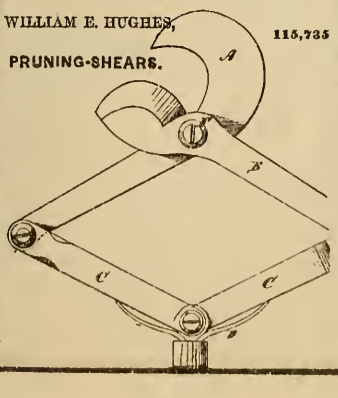
WILLIAM E. HUGHES,

PRUNING-SHEARS.

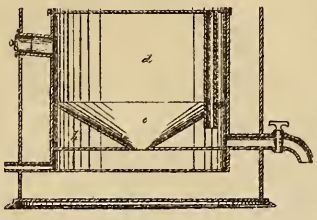
115,735



THOMAS J. JAMES.

WATER-COOLERS.

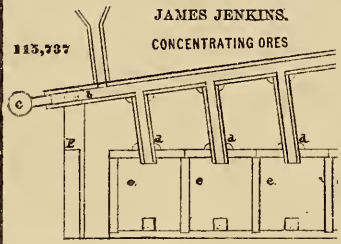
115,736



JAMES JENKINS.

CONCENTRATING ORES

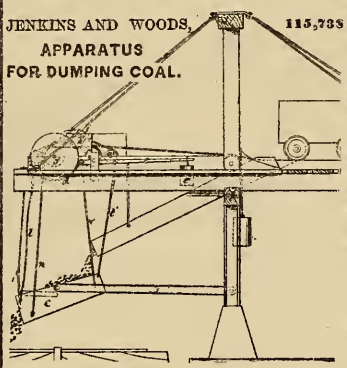
115,737

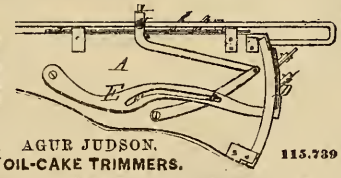


JENKINS AND WOODS,

APPARATUS FOR DUMPING COAL.

115,738





AGUR JUDSON.

OIL-CAKE TRIMMERS.

115,739

115,740 VINCENT E. KEEGAN.

REDUCING FIBROUS SUBSTANCES TO PULP.

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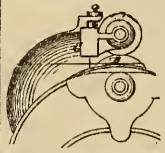
CHARLES KENISTON,

WELT AND STRAP CUTTERS.



115,742

JOSIAH J. KNIGHT,

FENCES.

115,744

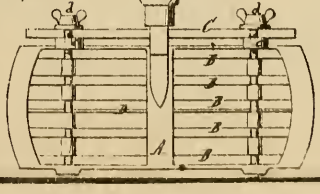
CHARLES L. LAWRENCE.

WRITING ON CHECKS, DRAFTS.

WILLIAM B. LAURENCE,

CURRY-COMBS.

115,743



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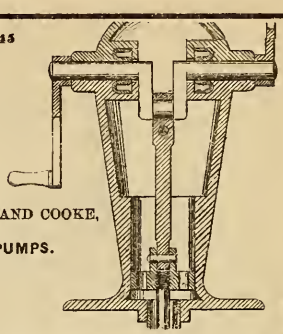

LAWS AND COOKE,

PUMPS.

LEHMAN AND ROSS. GAGE-COCKS.

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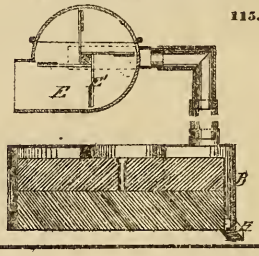
JACOB LINGENFELTER.

MILLSTONE-EXHAUSTS.

115,747

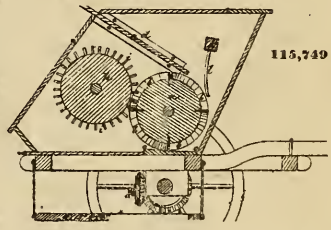


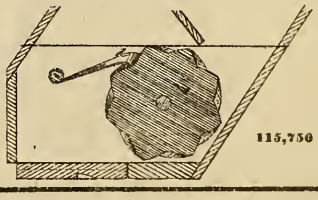
115,748 JOHN J. LOCKE, SHEET METALS.

JAMES P. MACHEN.

FERTILIZER-DISTRIBUTERS.

115,749





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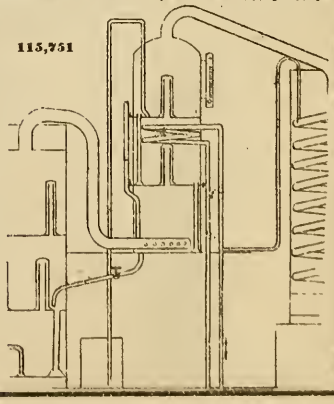
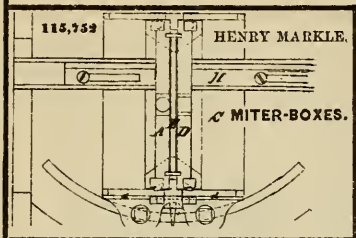
WESLEY MAKELY, STILLS FOR SPIRITS.

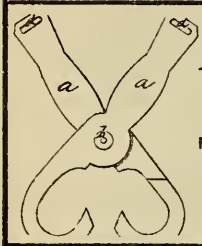
115,751



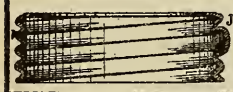
115,752 HENRY MARKLE. MITER-BOXES.



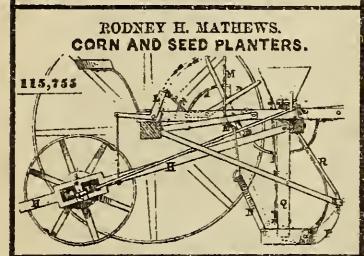
ARNOLD P. MASON, SLIDE-BARS FOR BRIDLE-BITS. 115,753



JOHN L. MASON, SCREW CAPS 115,754

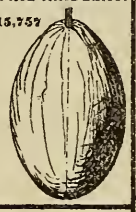


RODNEY H. MATHEWS. CORN AND SEED PLANTERS. 115,755

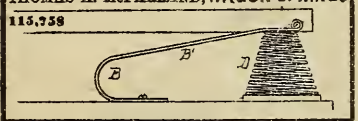


115,756 J. McCARTHY. TENSION ROLLERS

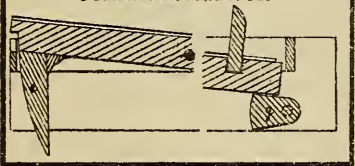
WILLIAM H. McCRABY. FIRE-KINDLERS. 115,757

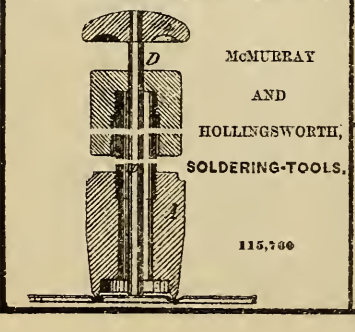


THOMAS A. McFARLAND, WAGON-SPRINGS 115,758



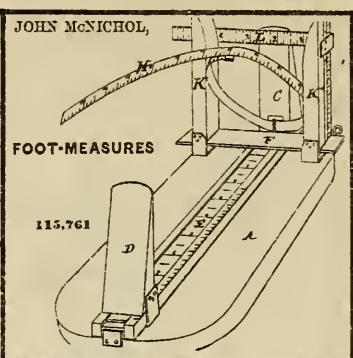
115,759 ROBERT M. McGRATH. DUMPING APPARATUS.



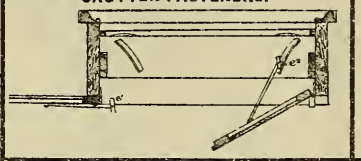


McMURRAY AND HOLLINGSWORTH, SOLDERING-TOOLS. 115,760

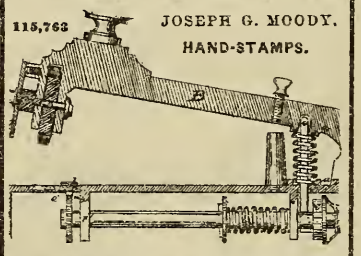
JOHN McNICHOL, FOOT-MEASURES 115,761

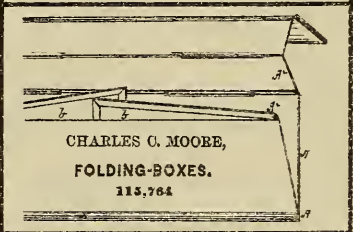


JOSEPH W. MEGAW. SHUTTER-FASTENERS. 115,762

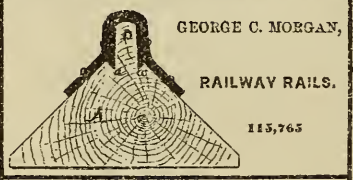


115,763 JOSEPH G. MOODY. HAND-STAMPS.



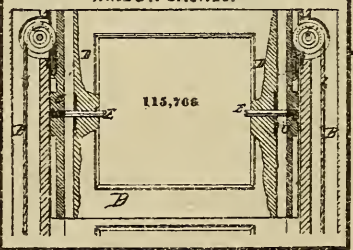


CHARLES C. MOORE, FOLDING-BOXES. 115,764

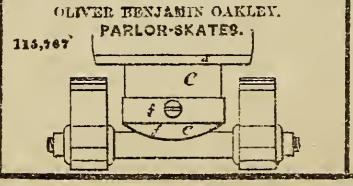


GEORGE C. MORGAN, RAILWAY RAILS. 115,765

WILLIAM P. NELSON, WINDOW-SASHES. 115,766

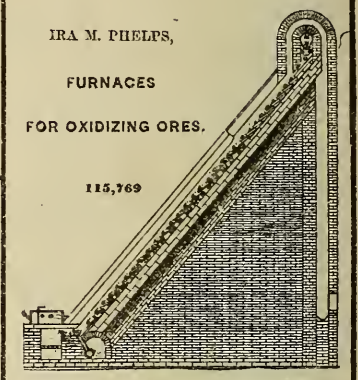


OLIVER BENJAMIN OAKLEY. PARLOR-SKATES. 115,767

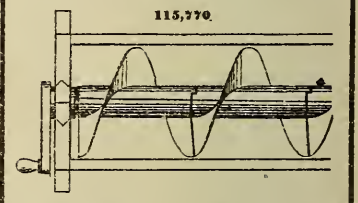


GEORGE W. PAGETT. DOOR-CHECKS. 115,768

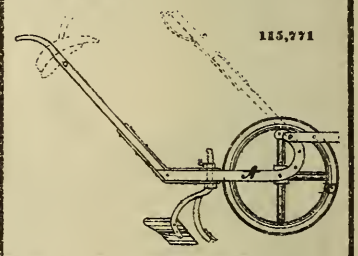
IRA M. PHELPS, FURNACES FOR OXIDIZING ORES. 115,769



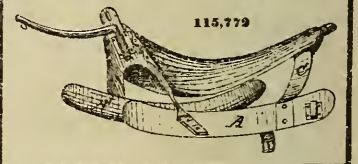
DAVID RUFUS QUICK. SCREWS. 115,770

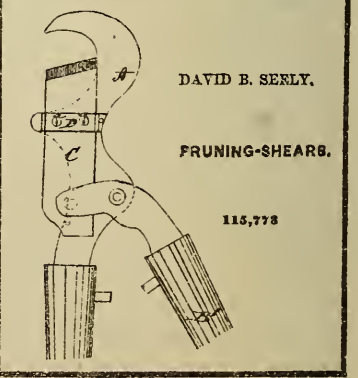


J. EUGENE REED. CULTIVATORS. 115,771



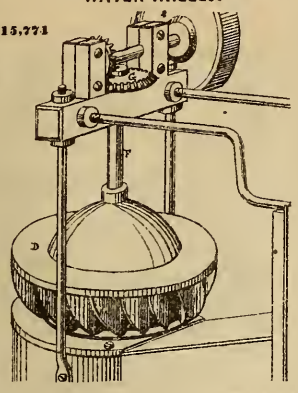
GEORG F. SCHMIDT. RIDING-SADDLES. 115,772



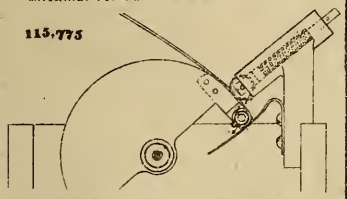


DAVID B. SEELY. PRUNING-SHEARS. 115,773

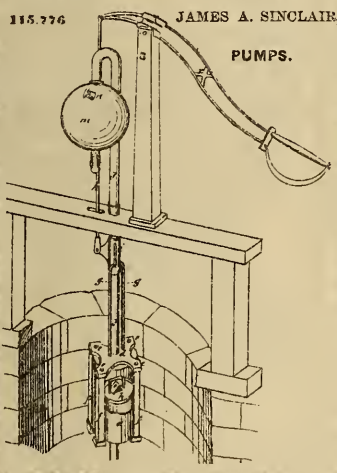
LORENZO DOW BUTTERS SHAW,
WATER-WHEELS.
115,774



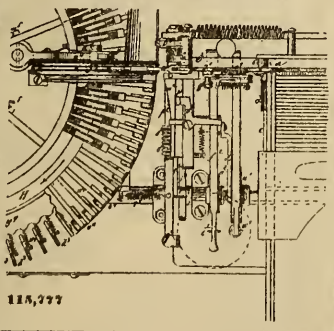
GEORGE F. SIMONDS,
MACHINES FOR BENDING HORSE-RAKE TEETH.
115,775



115,776 JAMES A. SINCLAIR,
PUMPS.



JOHN T. SLINGERLAND,
TYPE-DISTRIBUTING MACHINES.



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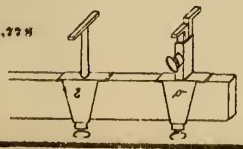
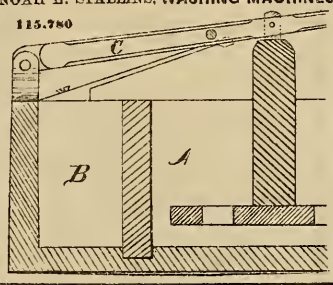
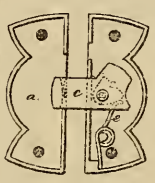
HENRY W. SPAULDING. AXLE-GAGES.
115,778



STAFFORD AND STANSBERRY,
SEWING-MACHINE CASTERS.
115,779

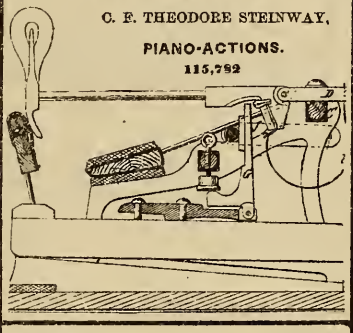
NOAH H. STALLINS, WASHING-MACHINES.
115,780





115,781
ELBRIDGE J. STEELE.
FASTENINGS
FOR
WINDOW-SHUTTERS.

C. F. THEODORE STEINWAY,
PIANO-ACTIONS.
115,782



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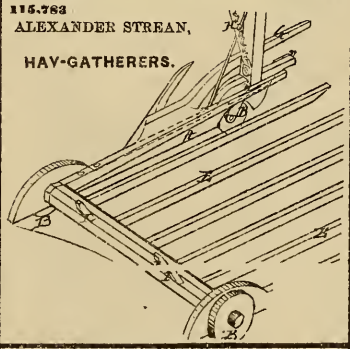
HAY-GATHERERS.



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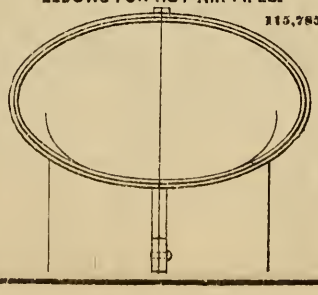
AUGUSTUS HENRY TAIT.
PRESERVING WOOD.

JOHN M. THATCHER.
ELBOWS FOR HOT-AIR PIPES.
115,785



THOMAS, CRAIG, AND CRAIG.
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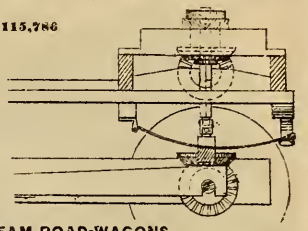

STEAM ROAD-WAGONS.

JOSEPH H. TRAVIS.
CHAIRS.
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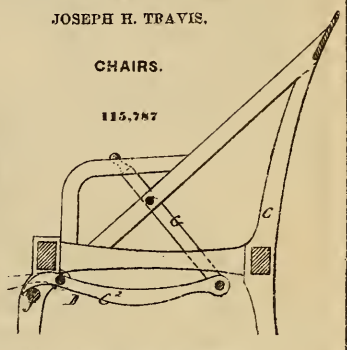
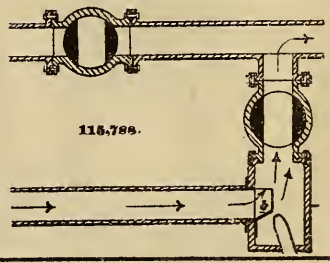


SAMUEL TRUMBORE,
EXHAUSTING GAS FROM RETORTS



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EDWARD TYRRELL.
LABELING ROUND BOXES.
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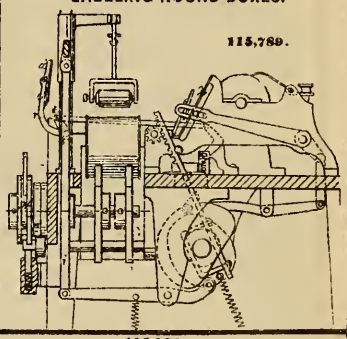

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LOUIS VIOLET.
COUGH-MIXTURES FOR USE IN CANDIES.

AUSBERT H. WAGNER.
GRIST-MILLS.
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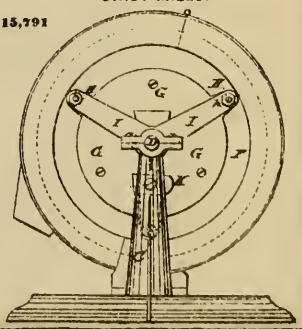

ALBERT G. WALDO. FRICTION-BRAKES

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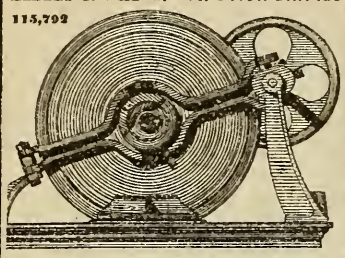

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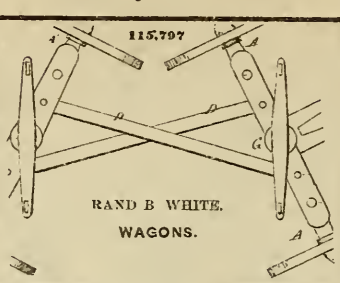
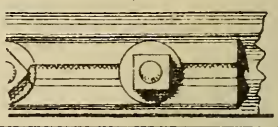


RAND B WHITE.

WAGONS.

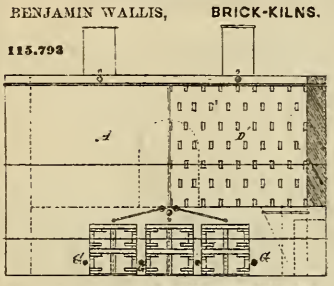
PIERRE L. GIBBS, LOCK-NUTS.

4,412



BENJAMIN WALLIS, BRICK-KILNS.

115,793



SAMUEL WHITNEY,

CARBURETING GAS AND AIR.

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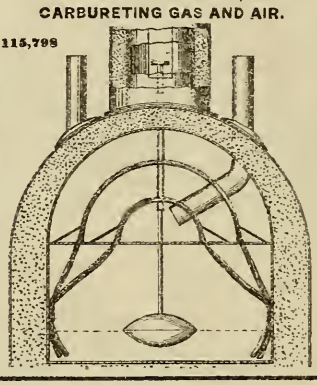

HALVOR HALVORSON,

LAMPS.

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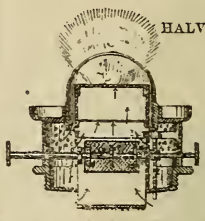
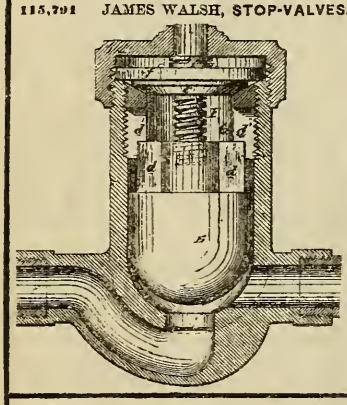


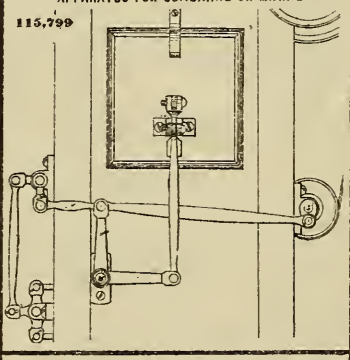
115,791 JAMES WALSH, STOP-VALVES.



GEORGE W. WILSON.

APPARATUS FOR COMBINING OR MIXING

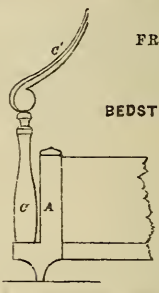
115,799



FRANÇOIS LAYAUX.

BEDSTEADS AND TESTERS.

4,414



CLEMENTINE D. RUTHERFORD.

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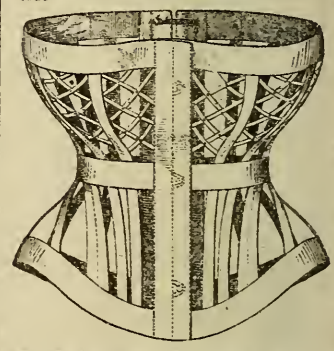
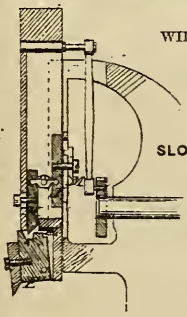


WILLIAM H. WARREN.

SLOTTING-MACHINES.

115,795



CHARLES J. WOOD,

COOKING-RANGES.

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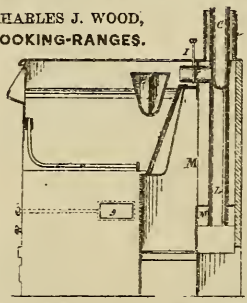

STUART AND STUART. CHEESE-VATS.

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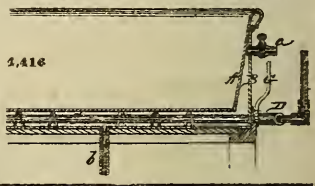

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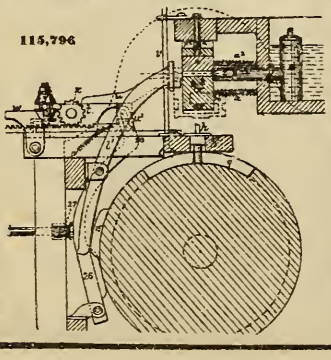
JOSEPH A. TATRO.

TREATING PETROLEUM AND ITS PRODUCTS.

CHARLES S. WESTCOTT.

TYPE COMPOSING AND CASTING MACHINES

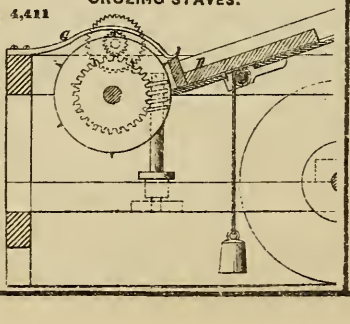
115,796



ELLIOTT, SMITH, AND GRAY,

CROZING STAVES.

4,411



HENRY VOELTER,

REDUCING WOOD

TO PAPER-PULP.

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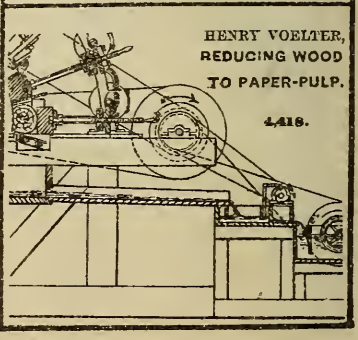

ILLUSTRATIONS OF PATENTS
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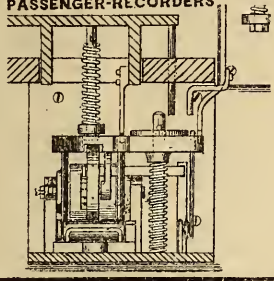
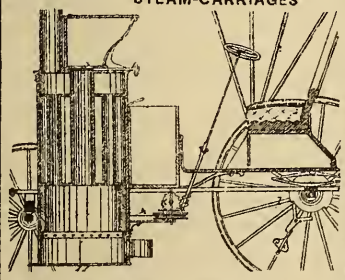
THE UNITED STATES PATENT OFFICE
JUNE 13, 1871.

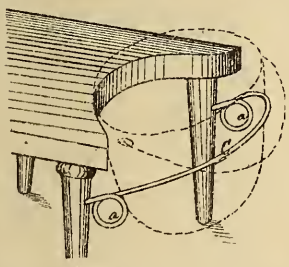
115,801 JAMES T. ALDRICH. PASSENGER-RECORDERS.



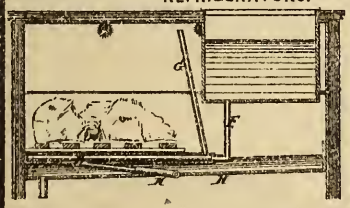
115,802 FRANCIS ALGER. STEAM-CARRIAGES



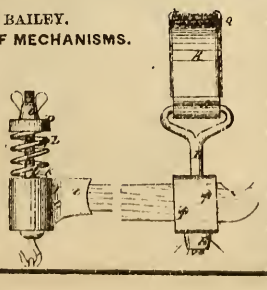
115,803 LEVI O. ALLEN, MILKING-STOOLS.



115,804 ANDERSON AND BOGARDUS, REFRIGERATORS.



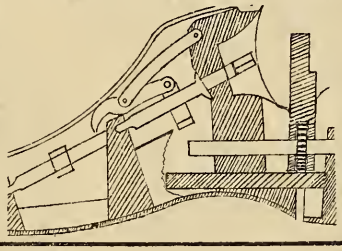
115,806 GEORGE BAILEY. LET-OFF MECHANISMS.



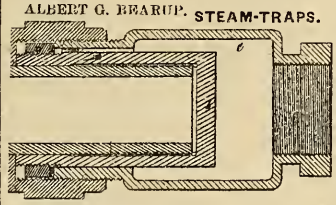
115,805 WALTER A. ASPINALL PREPARATIONS OF IRON.

115,807 GEORGE W. BANKER. BARRELS, KEGS, AND PAILS.

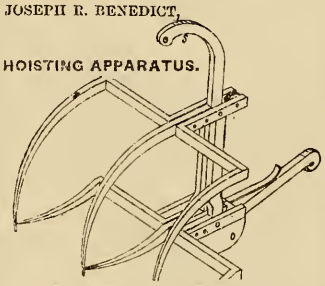
115,808 EMERSON REED BARDIN. BOOT-AND-SHOE STRETCHERS.



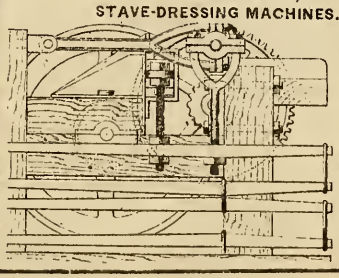
115,809 ALBERT G. BEARUP. STEAM-TRAPS.



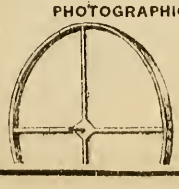
115,810 JOSEPH R. BENEDICT, HOISTING APPARATUS.



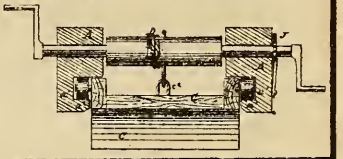
115,811 BENSON AND BENSON, STAVE-DRESSING MACHINES.



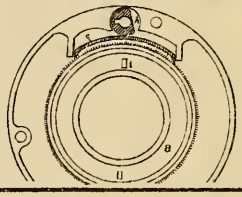
115,812 LYMAN G. BIGELOW, PHOTOGRAPHIC BACKGROUNDS.



115,813 JOSIAH BISHOP, ELEVATORS.



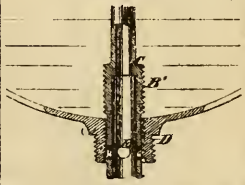
115,814 EDWARD W. BRETTELL, PERMUTATION WHEELS



115,815 JOHN BRIZEE. MOP-HEADS.

115,816 WILLIAM BROOKS. VARNISHES FOR COATING THE SURFACES OF BOBBINS OR SPOOLS.

115,817 WILLIAM J. BRUNDRED, APPARATUS FOR OIL-TANKS.



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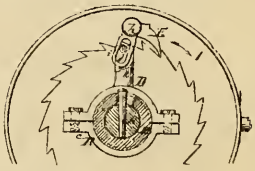
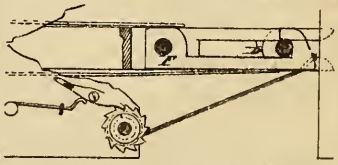
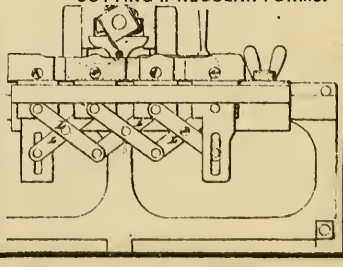


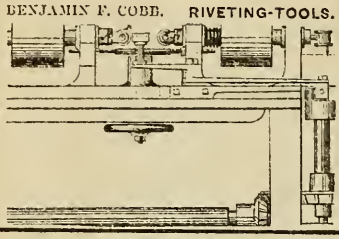
115,819 EUGENE CAMPBELL. CAR-COUPLINGS.



115,820 JAMES W. CAMPBELL. CUTTING IRREGULAR FORMS.



115,821
BENJAMIN F. COBB. RIVETING-TOOLS.



DAVID N. B. COFFIN,
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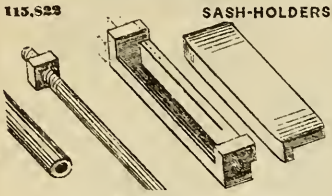
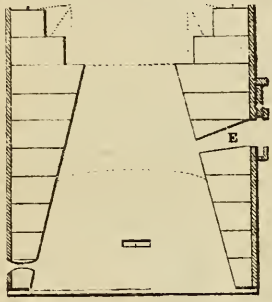


ANSON G. COOK,
115,823 CUPOLA-FURNACES.



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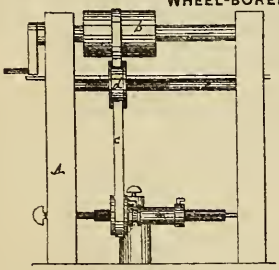
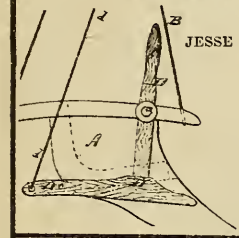
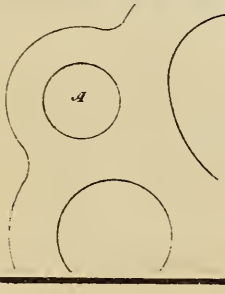
WHEEL-BORERS



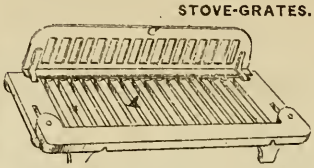


115,825
JESSE A. CRANDALL,
SWINGS.

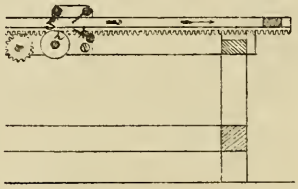
115,826
GEORGE H. CREED, SPECTACLE-CLEWS



115,827 SALMON P. DAVIS,
STOVE-GRATES.



115,828 CHARLES A. DEAN,
CLEANING SISAL, HEMP, AND OTHER GRASSES.



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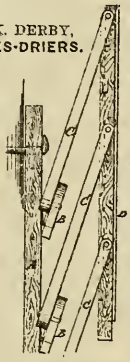
JOHN K. DERBY,
CLOTHES-DRIERS.



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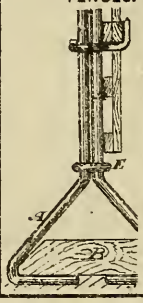
HENRY DEYOE.
FENCES.



115,831 NANCY DUNCAN,
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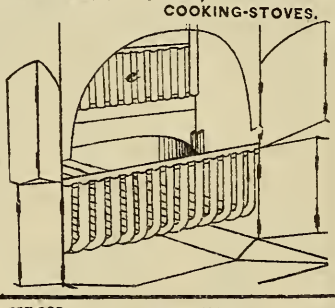
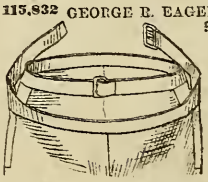


115,832 GEORGE B. EAGER.
PANTALOONS.



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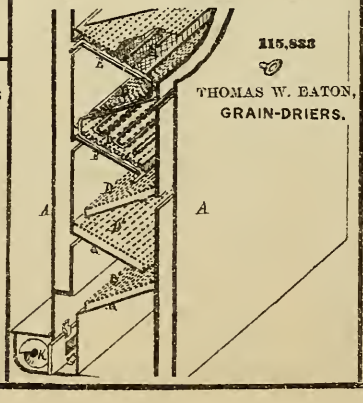
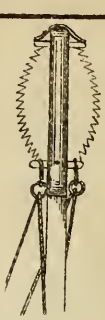
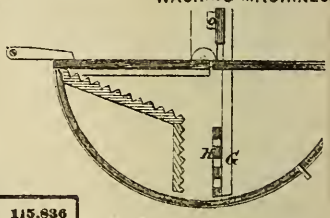
THOMAS W. EATON,
GRAIN-DRIERS.





115,834
PETER EBERLE
PRUNING-SAWS.

115,835
FRANCIS M. ELLIS,
WASHING-MACHINES.



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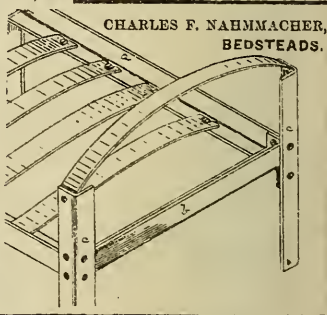
CHARLES F. NAHMMACHER,
BEDSTEADS.



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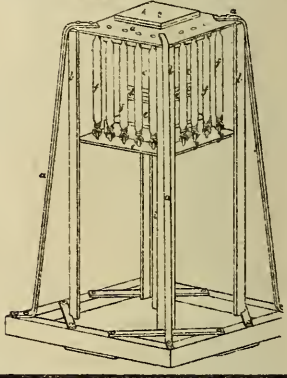
WILLIAM FARINI, PROJECTORS.



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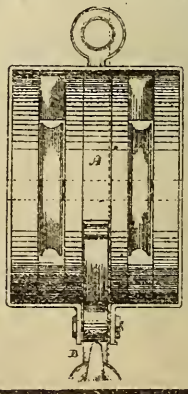
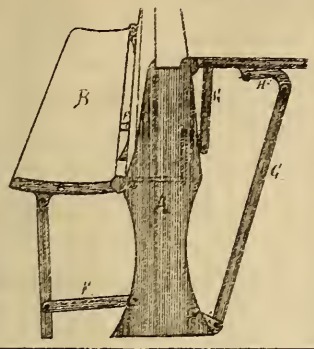
HICKMAN E. FOSTER.
BOAT-DETACHING APPARATUS.



115,839

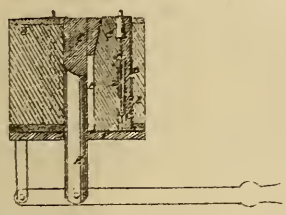
JOHN H. FRENCH.

SCHOOL-DESKS.



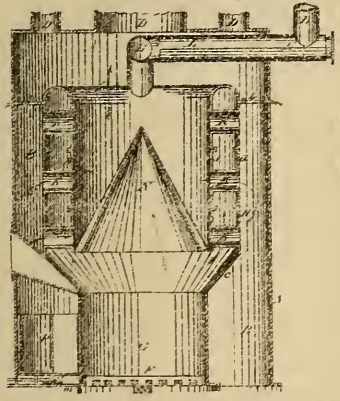
115,840 EDWARD L. GAYLORD,

PIN-CLAMPS FOR RIVETING.



115,841 WILLIAM B. GEDDES,

HOT-AIR FURNACES.



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SIMON PETER GRAHAM,

CARRIAGE-SEATS.

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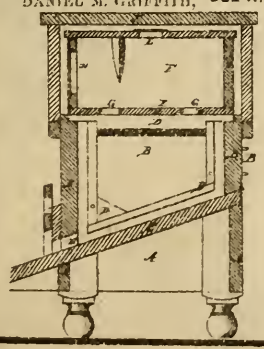
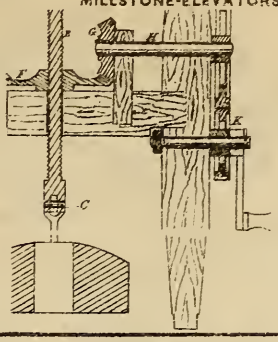
DANIEL M. GRIFFITH, BEE-HIVES.



115,844 JOSEPH B. HALL.

MILLSTONE-ELEVATORS.



JAMES B. HARPER, CAR-COUPLINGS.

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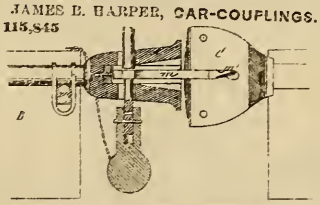

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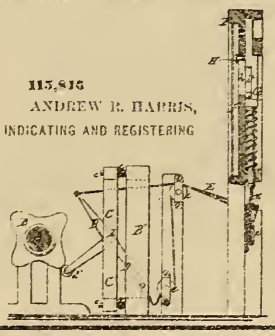
ANDREW R. HARRIS,

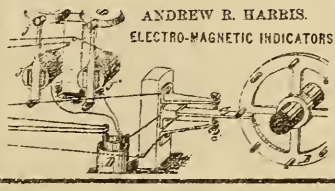
INDICATING AND REGISTERING



115,847

ANDREW R. HARRIS.

ELECTRO-MAGNETIC INDICATORS



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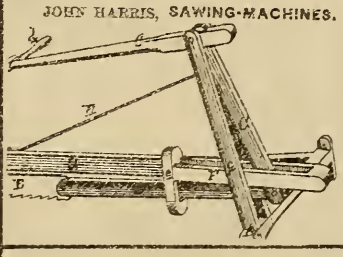
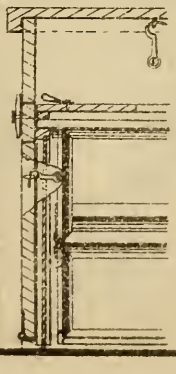
JOHN HARRIS, SAWING-MACHINES.





115,849

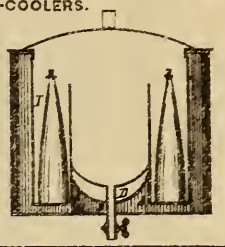
H. HARVEY,

BEE-HIVES.

115,850

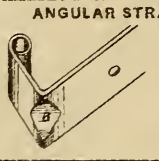
GEORGE M. HASZINGER,

BEER-COOLERS.



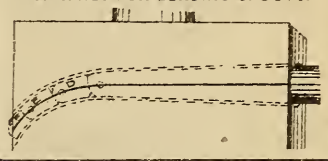
115,851 CHARLES F. HAWLEY,

ANGULAR STRAP-HINGES.



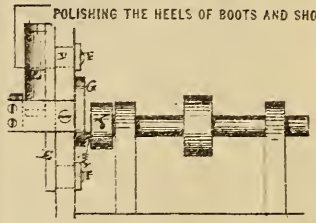
115,852 HAYES AND MARTEN.

MACHINES FOR BENDING SPOUTS.



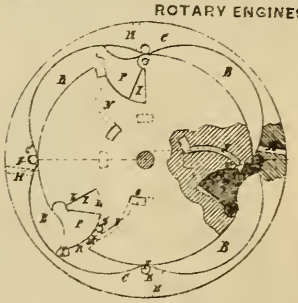
115,853 CHARLES H. HELMS,

POLISHING THE HEELS OF BOOTS AND SHOES.



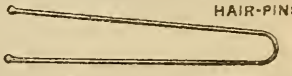
115,854 BENJAMIN I. HENDERSON.

ROTARY ENGINES.



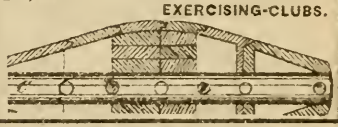
115,855 HEWITT AND McAULIFFE,

HAIR-PINS.



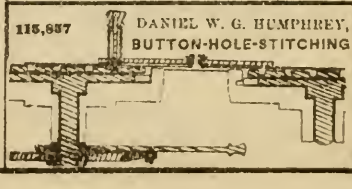
115,856 CHARLES E. HIESTER.

EXERCISING-CLUBS.

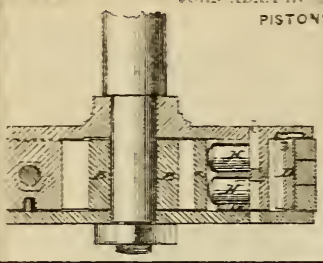


115,857 DANIEL W. G. HUMPHREY,

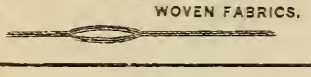
BUTTON-HOLE-STITCHING



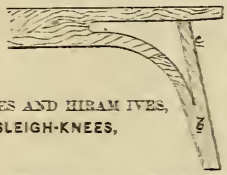
115,858 JOHN ADAM HUSS. PISTONS



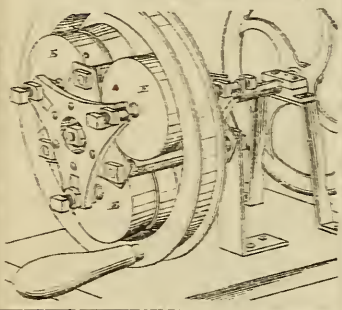
115,859 THOMAS ISHERWOOD. WOVEN FABRICS.



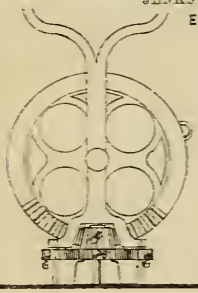
115,860 GEORGE IVES AND HIRAM IVES, BENT SLEIGH-KNEES,



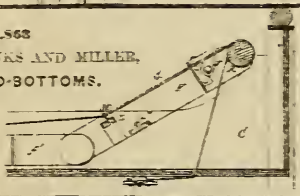
115,861 FREDERICK P. JAQUITH, TRANSMITTING POWER.



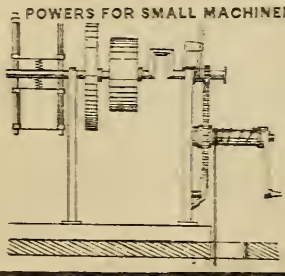
115,862 JENKS AND MARSH. EGG-BEATERS.



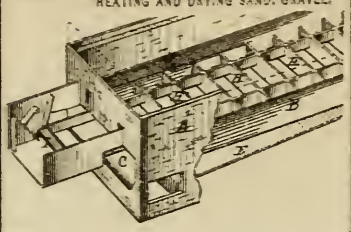
115,863 JENKS AND MILLER, SED-BOTTOMS.



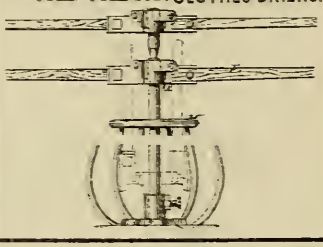
115,864 CHARLES L. JOHNSON. POWERS FOR SMALL MACHINERY.



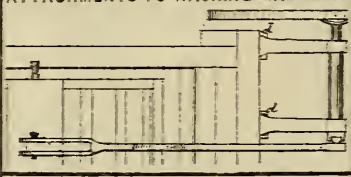
115,865 HIRAM P. JOHNSON. HEATING AND DRYING SAND, GRAVEL.



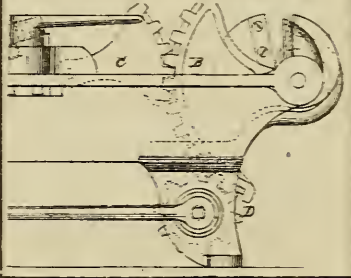
115,866 JOHN JOHNSON. CLOTHES-DRIERS.



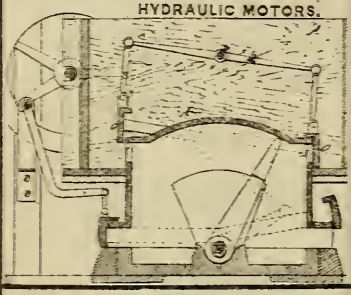
115,867 WILLIAM M. JOHNSTON, ATTACHMENTS TO WASHING-MACHINES



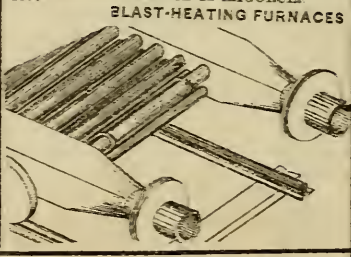
115,868 JAMES C. JORDON, CUTTING, PUNCHING, AND BENDING TIRES.



115,869 VOLNEY KROMER, HYDRAULIC MOTORS.

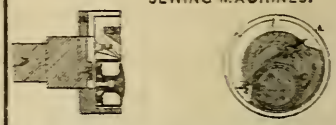


115,870 GABRIEL H. LAGORCE. BLAST-HEATING FURNACES

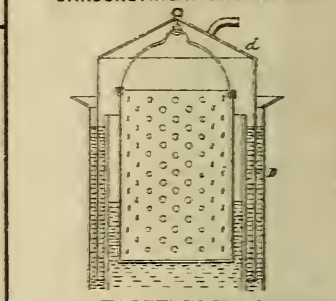


115,871 FREDERICK LAMBE. TREATING SOLID AND LIQUID HYDROCARBONS.

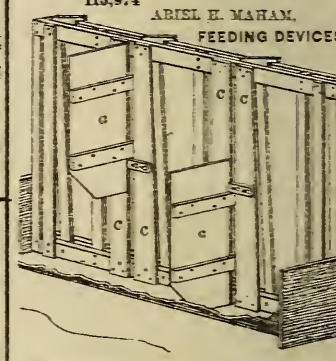
115,872 JOHN H. LESTER. SEWING-MACHINES.



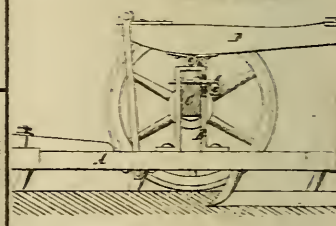
115,873 CHARLES B. LOVELESS. CARBURETING HYDROGEN GAS.



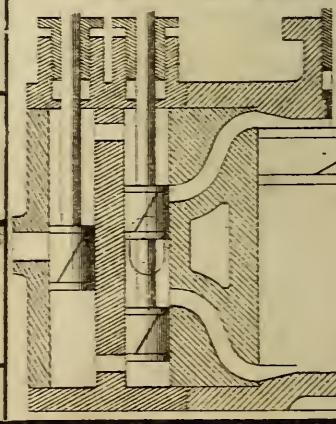
115,874 ABIEL H. MAHAM. FEEDING DEVICES



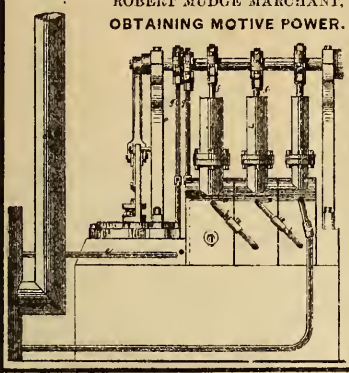
115,875 PHILIP MAIER. CULTIVATORS.



115,876 ROBERT MUDGE MARCHANT, MOTIVE-POWER ENGINES.



115,877 ROBERT MUDGE MARCHANT, OBTAINING MOTIVE POWER.



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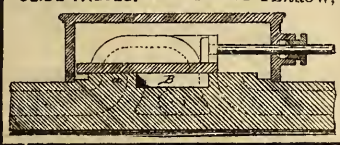
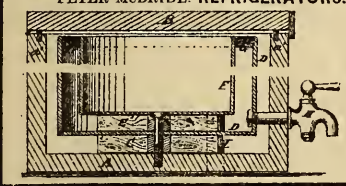
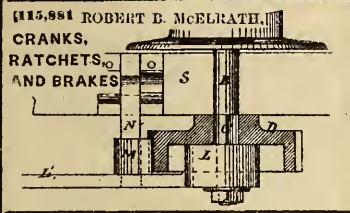


115,879 PETER McBRIDE. REFRIGERATORS.



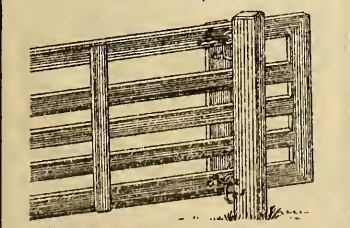
115,880 CHARLES McBURNEY. FINISHING VULCANIZED INDIA-RUBBER BELTINGS.

115,881 ROBERT B. McELRATH, CRANKS, RATCHETS, AND BRAKES



115,882 HUGH MERRIE, NON-FREEZING HYDRANTS.

115,883 GERSHOM MOTT, GATES.



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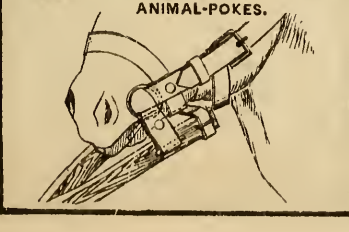
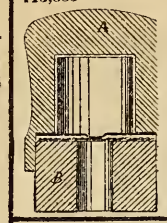
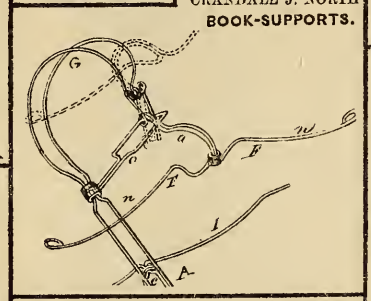


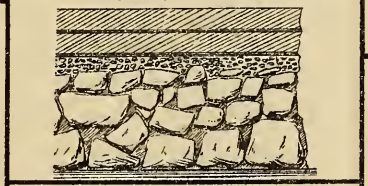
115,885 DAVID S. NEAL, KNIFE-SCOURERS.



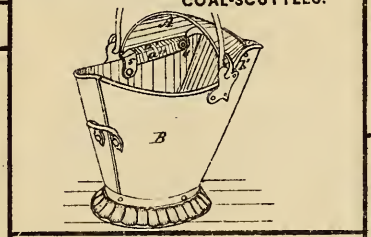
115,886 CRANDALL J. NORTH BOOK-SUPPORTS.



115,887 WILLIAM B. PARISEN, ASPHALTIC PAVEMENTS.



115,888 JOHN PFEIFER, COAL-SCUTTLES.



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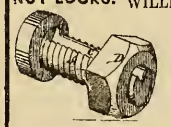
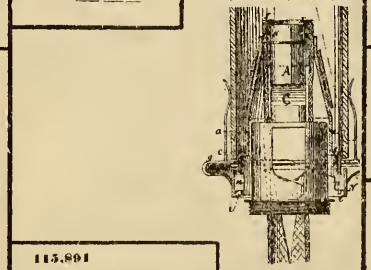
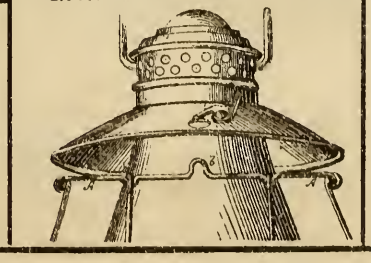


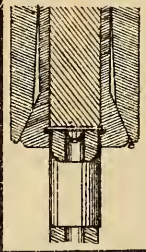
115,890 SEABURY B. PLATT, LAMP-BURNERS.



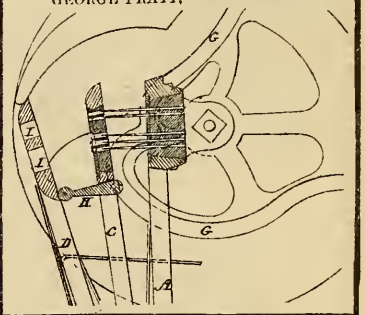
115,891 WILLIAM PORTER, JR. LANTERNS.



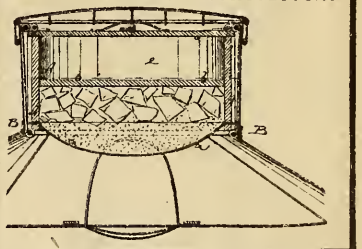
115,892 TIMOTHY J. POWERS, METALLIC CARTRIDGES.



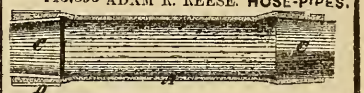
115,893 GEORGE PRATT, RAISIN-SEEDERS.



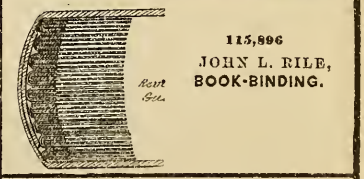
115,894 HELLWIG PREVÔT, SUN-STROKE PROTECTORS



115,895 ADAM R. REESE. HOSE-PIPES.



115,896 JOHN L. RILE, BOOK-BINDING.

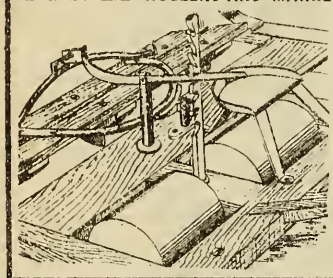


115,897 JULIUS ROBBINS. SNAP-HOOKS.

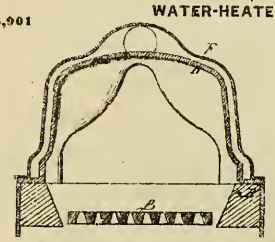
115,898 GEORGE S. ROBERTS. ADJUSTABLE MIRRORS.

115,899
MOPS.
THOMAS F. ROONEY,

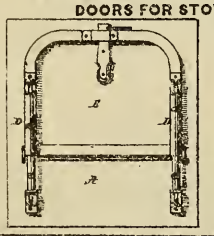
115,900
ROTH AND FÜRST,
ROLLERS AND MARKERS



SMITH AND LYNCH,
WATER-HEATERS.
115,901



GEORGE W. SMITH,
DOORS FOR STOVES.
115,902



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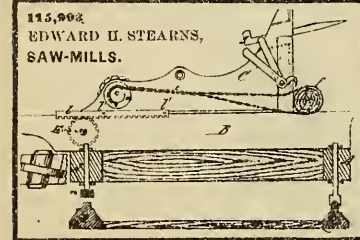
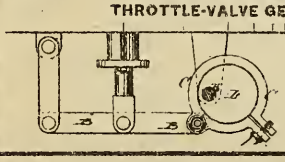
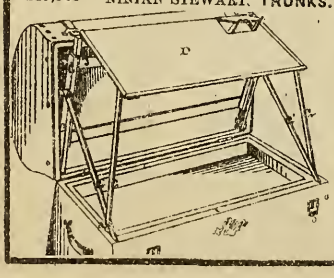
EDWARD H. STEARNS,
SAW-MILLS.



115,904 CHARLES E. STEWART,
THROTTLE-VALVE GEARS.



115,905 NINIAN STEWART, TRUNKS.



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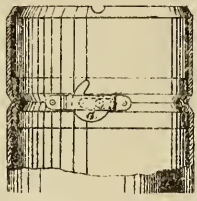
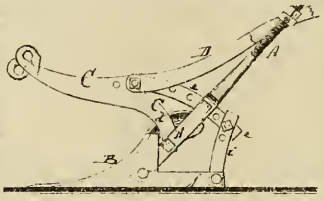
WILLIAM STINE,
STOVE-PIPE JOINTS.



115,907 JOHN THOMAS STORY, PLOWS.



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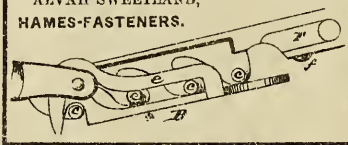
ALVAH SWEETLAND,
HAMES-FASTENERS.



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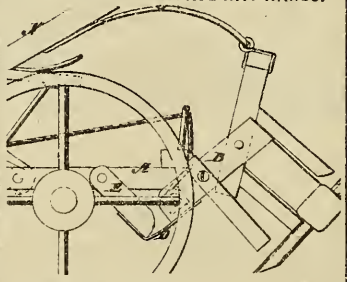
HORSE HAY-RAKES.



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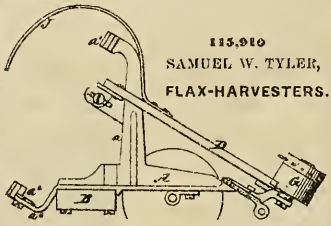
SAMUEL W. TYLER,
FLAX-HARVESTERS.



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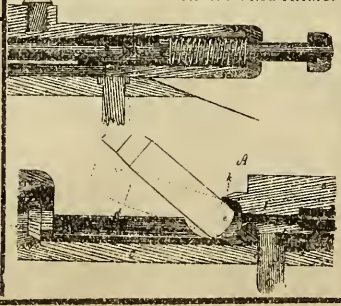
SILVANUS FREDERICK VAN CHOATE,
BREECH-LOADING FIRE-ARMS.



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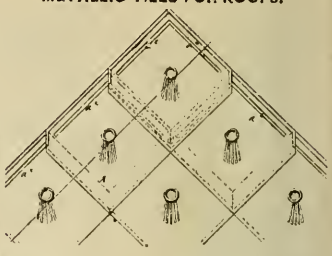
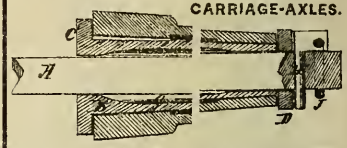
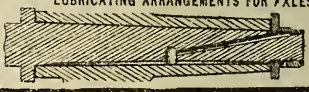
CORNELIS G. VAN PAPPELENDAM,
METALLIC TILES FOR ROOFS.



115,913 ERNEST FRIEDRICH WAGNER,
CARRIAGE-AXLES.



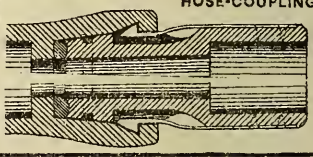
115,914 CHARLES A. WAKEFIELD,
LUBRICATING ARRANGEMENTS FOR AXLES



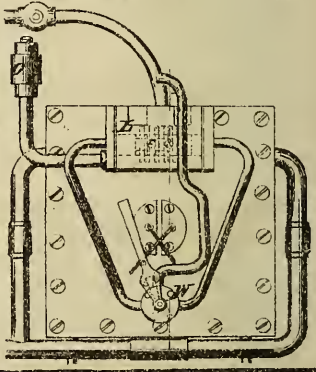
115,915 EDWARD F. WALSH AND
SANFORD DURYEA
WRITING-INKS.

115,916
FRANKLIN WESSON,
REVOLVING FIRE-ARMS.

115,917
LEVI WHARTON,
HOSE-COUPLINGS.

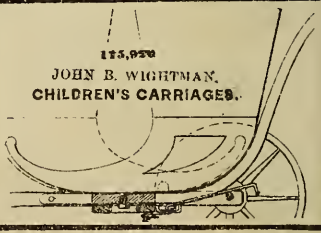


115,918 JAMES W. WHITAKER,
STEAM-PUMPS AND FIRE-ENGINES.

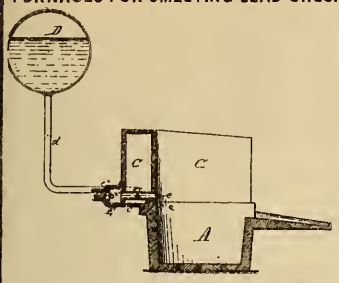


115,919. SUSPENDED.

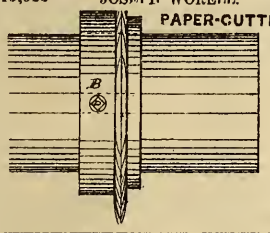
115,920
JOHN B. WIGHTMAN,
CHILDREN'S CARRIAGES.



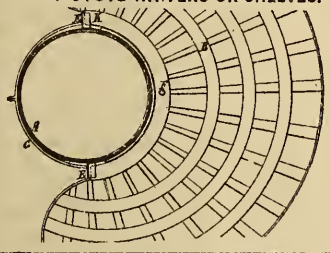
115,921 JOHN V. WOODHOUSE, FURNACES FOR SMELTING LEAD ORES.



115,922 JOSEPH WORELL. PAPER-CUTTERS.

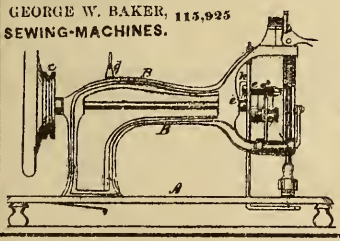


115,923 CHARLES D. WRIGHT. STOVE WAITERS OR SHELVES.



115,924 ANTON GEORG ANDERSON. COMPOSITION PAVEMENTS.

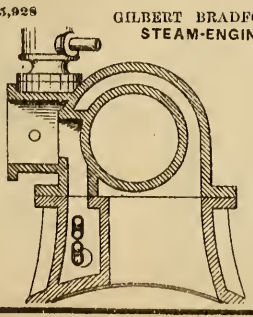
GEORGE W. BAKER, 115,925 SEWING-MACHINES.



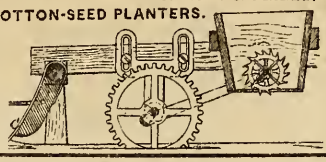
115,927 LOUIS R. BOYD, SCREW-CAPS FOR CANS.

115,926 JOHN EDWARD BINGHAM. ELECTRO SLATING WITH TIN.

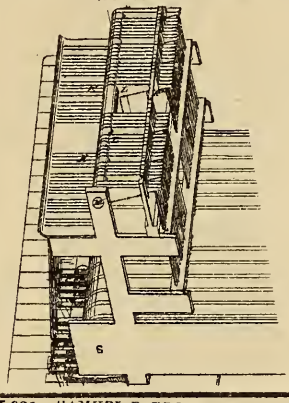
115,928 GILBERT BRADFORD. STEAM-ENGINES.



115,929 THOMAS E. C. BRINLY. COTTON-SEED PLANTERS.

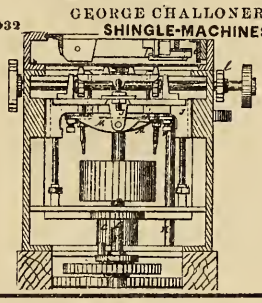


115,930 SAMUEL R. BROOKS. NOTATORS FOR MUSIC.

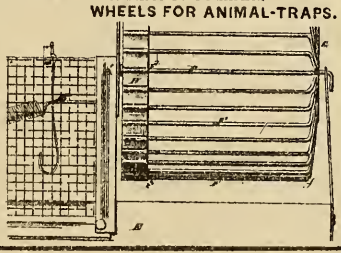


115,931 SAMUEL P. BROWN. PRESERVING WOOD.

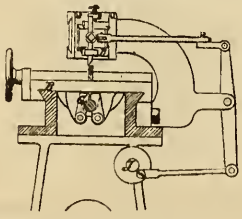
115,932 GEORGE CHALLONER. SHINGLE-MACHINES.



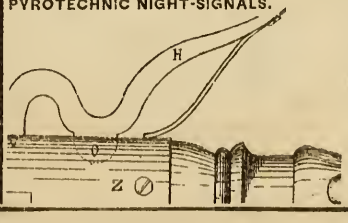
115,933 WILLIAM F. COLLIER. WHEELS FOR ANIMAL-TRAPS.



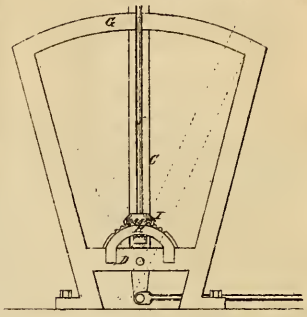
115,934 JAMES M. CONNER, ORNAMENTING PRINTERS' RULES.



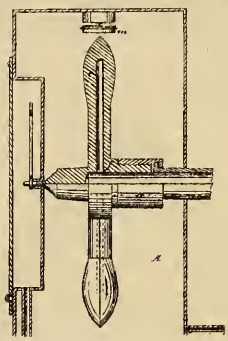
115,935 MARTHA J. COSTON, PYROTECHNIC NIGHT-SIGNALS.



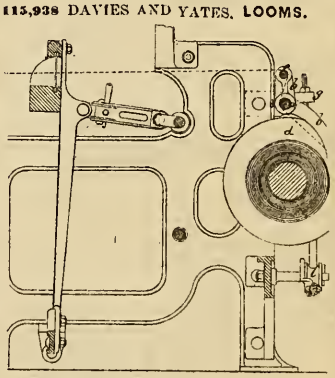
115,936 ALONZO W. CRAM, RAILWAY-SWITCH SIGNALS.



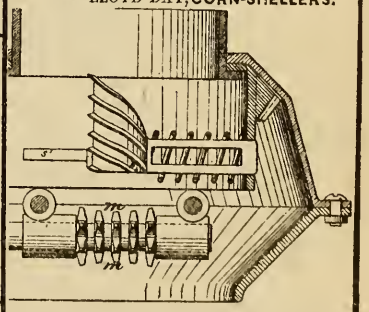
115,937 JOSEPH W. CREMIN, WATER-METERS.



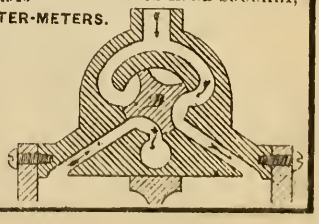
115,938 DAVIES AND YATES, LOOMS.



115,939 LLOYD DAY, CORN-SHELLERS.



115,940 AUGUSTUS M. DE SOUCHET, WATER-METERS.



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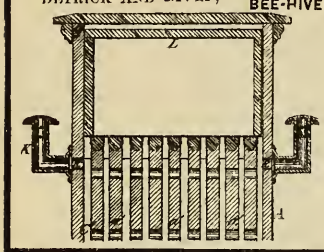
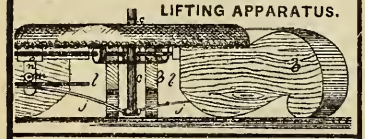
DETRICK AND NIVEN, BEE-HIVES.



115,942 CHARLES H. DOUGLAS, LIFTING APPARATUS.



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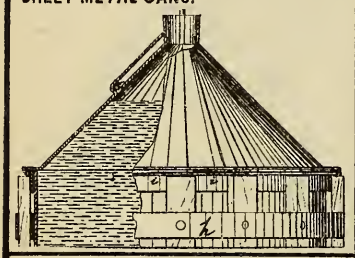
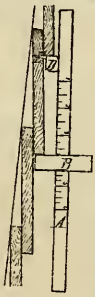
JOHN G. EVENDEN
SHEET-METAL CANS.



115,944 JOSEPH FANYON,
APPLYING REMEDIES TO THE EAR.

115,945
HENRY FELLOWS.
WEATHER-BOARD GAUGES.



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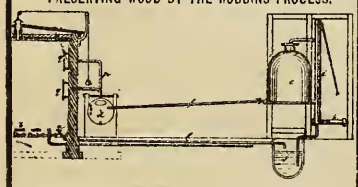
R. BERKELEY FITTS,
PREPARING GRAIN FOR FOOD.

115,946 JOHN W. FIELDER,
PRESERVING WOOD BY THE ROBBINS PROCESS.



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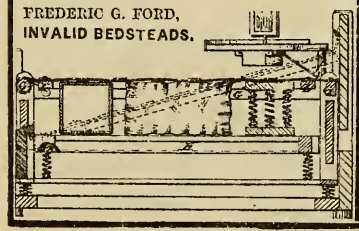
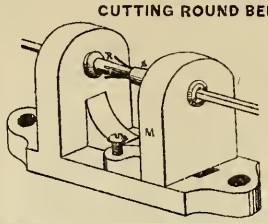
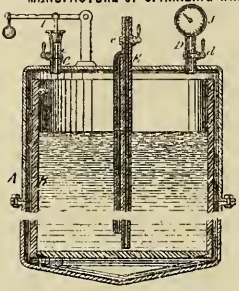
FREDERIC G. FORD,
INVALID BEDSTEADS.



115,919
JOHN C. FOSTER.
CUTTING ROUND BELTS.

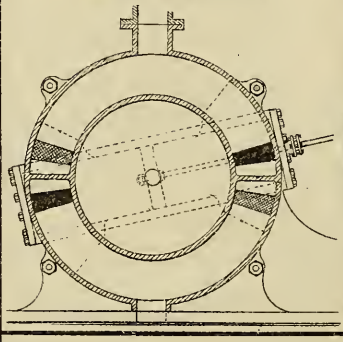


115,950 WILLIAM GILHAM,
MANUFACTURE OF SPARKLING WINES.



115,951 JAMES P. GILLESPIE,
ATTACHMENTS FOR DENTAL-PLATES.

115,952
JOHN GOULDING,
OSCILLATING ENGINES.



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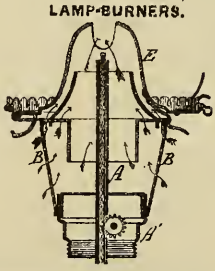
WILLIAM H. GRAY,
LAMP-BURNERS.



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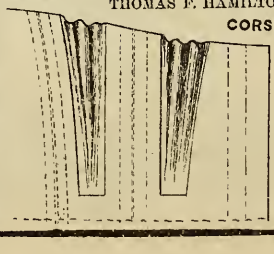
THOMAS F. HAMILTON,
CORSETS.



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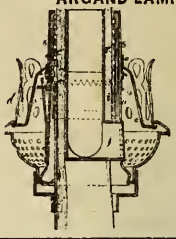
HIRAM W. HAYDEN,
ARGAND-LAMP BURNERS.



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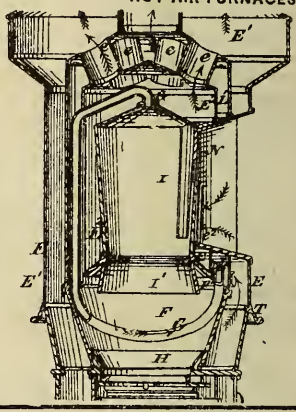
SHUBAEL E. HEWES,
HOT-AIR FURNACES.



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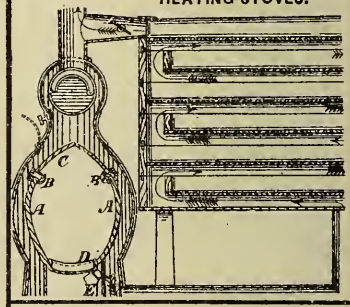
SHUBAEL E. HEWES,
HEATING-STOVES.



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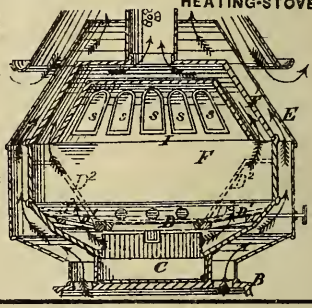
SHUBAEL E. HEWES,
HEATING-STOVES.



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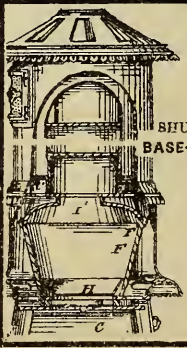
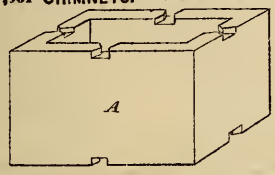
SHUBAEL E. HEWES,
BASE-BURNING STOVES.

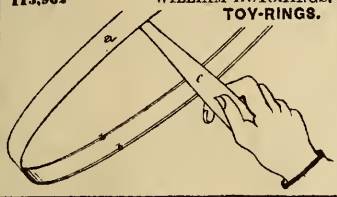


115,960 LYSANDER HILL. WOOD PAVEMENTS.

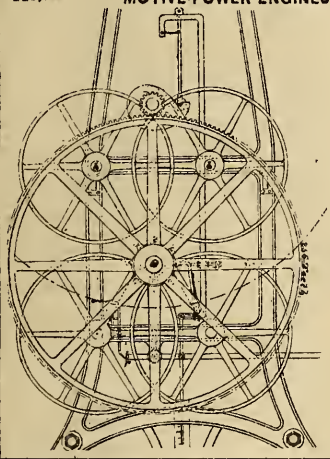
115,961 CHIMNEYS. SETH HOPKINS,



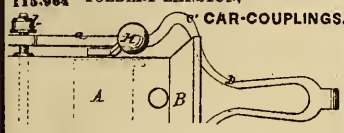
115,962 WILLIAM HUTCHINGS. TOY-RINGS.



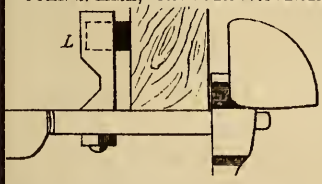
115,963 JOHN STUART JOHNSTONE, MOTIVE-POWER ENGINES.



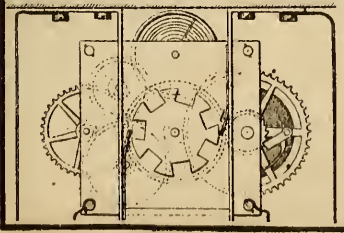
115,964 TOLBERT LANSTON, CAR-COUPLINGS.



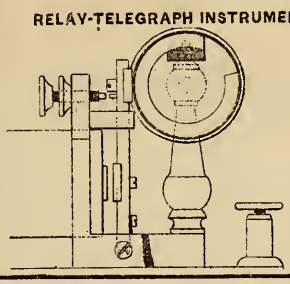
115,965 JOHN S. LASH, SHUTTER-FASTENERS.



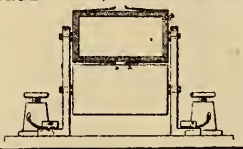
115,966 GEORGE LITTLE. SWITCHES FOR GALVANIC BATTERIES.



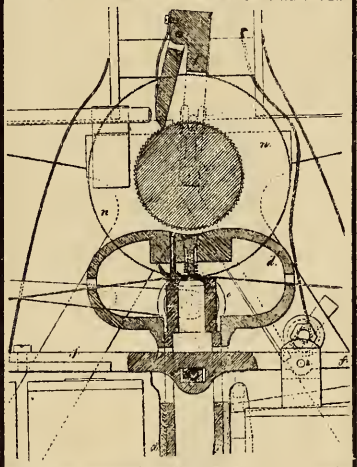
115,967 GEORGE LITTLE, RELAY-TELEGRAPH INSTRUMENTS.



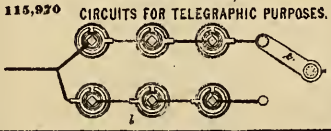
115,968 GEORGE LITTLE, CIRCUIT-CLOSING ROLLERS



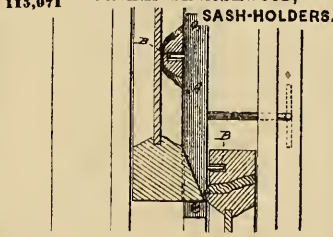
115,969 GEORGE LITTLE, APPARATUS FOR PERFORATING PAPER



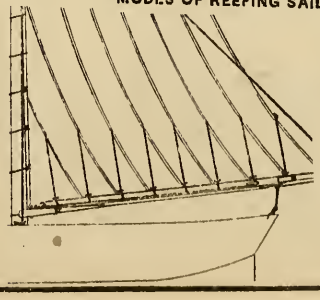
115,970 GEORGE LITTLE, CIRCUITS FOR TELEGRAPHIC PURPOSES.



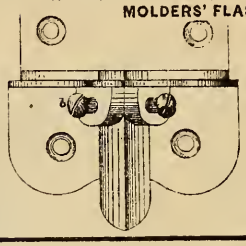
115,971 ZEPHANIAH LOCKWOOD, SASH-HOLDERS.



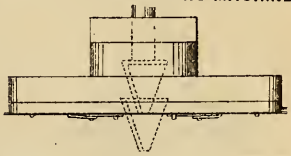
115,972 JOHN J. MASON. MODES OF REEFING SAILS.



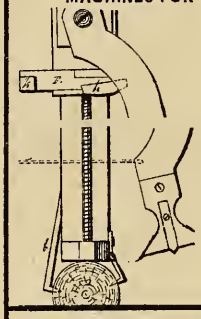
115,973 ALFRED MERRIMAN, MOLDERS' FLASKS.



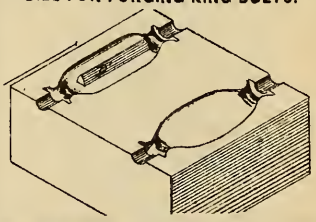
115,974 WILLIAM R. MIDDLETON, CROZING-MACHINES.



115,975 ENOCH R. MORRISON. MACHINES FOR FELLING TREES.

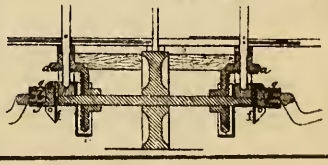


115,976 FRANCIS B. MORSE. DIES FOR FORGING KING-BOLTS.

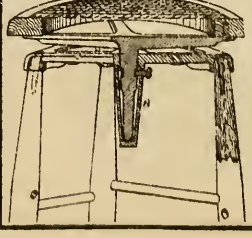


115,977 HENRY MYERS. CUT-OFFS

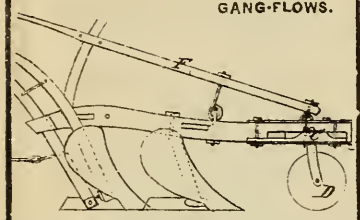
115,978 RICHARD L. NELSON. CORN-HARVESTERS.



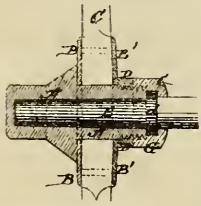
HENRY OCORR. 115,979 CHAIR AND STOOL IRONS.



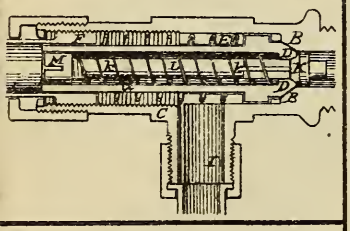
115,980 WILLIAM PARRISH
GANG-PLOWS.



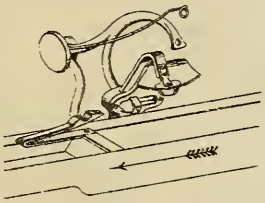
115,981 JOSEPH C. PIERCE,
WHEELS FOR VEHICLES.



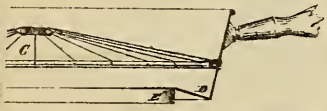
115,982 JOHN PORTEOUS,
PRESSURE AND VACUUM VALVES.



115,983 HENRY PUDDER,
KNITTING-MACHINES.



115,984 DAVID E. ROE, BROILERS.



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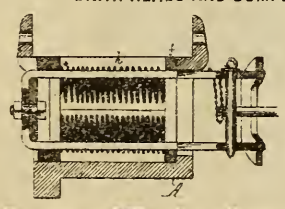
ROSS AND DE LA MATER, BUCKLES.

115,986 DANIEL SHAABER,
DRAW-HEADS AND BUMPERS



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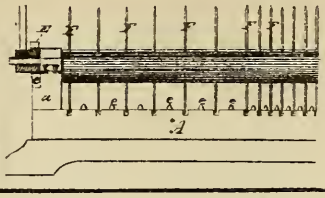

115,988 BYRON SLOPER
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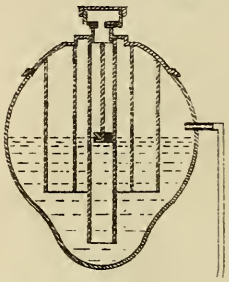
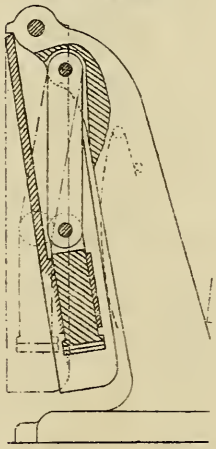


115,989 JOSEPH SLOPER
HAND-STAMPS.



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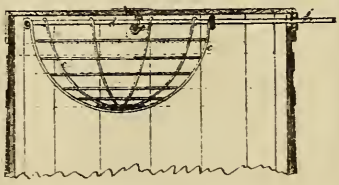
ASH-SIFTERS.



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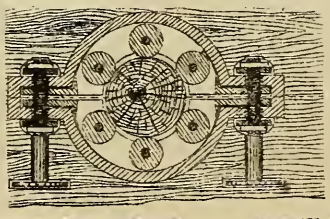
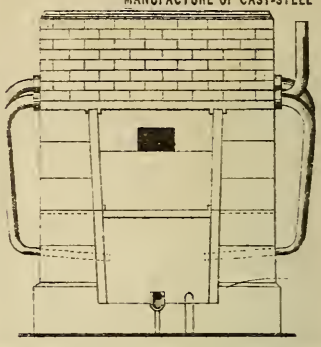


115,992 THOMAS TRAFFORD,
MANUFACTURE OF CAST-STEEL



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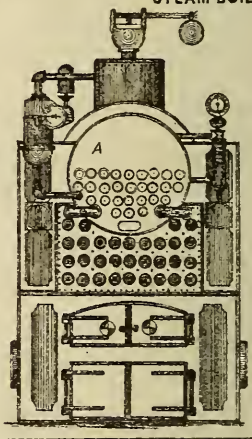
STEAM-BOILERS.



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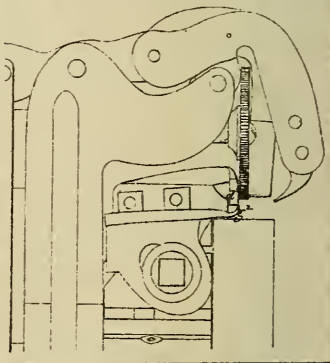
BOOT-AND-SHOE CHANNELING



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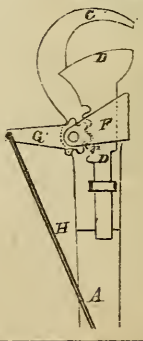
PRUNING-SHEARS.



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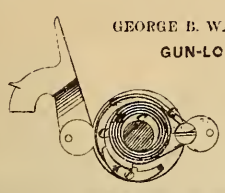
GEORGE B. WARREN,

GUN-LOCKS.



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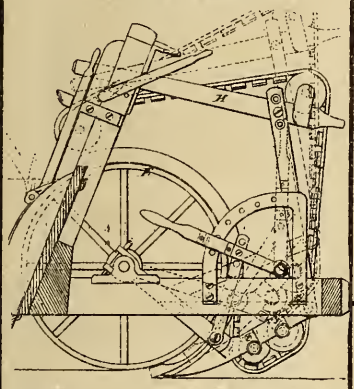
ELI WHITNEY,

BREECH-LOADING FIRE-ARMS.

115,998

ELIAS H. WILLIAMS,

EXCAVATING-MACHINES.



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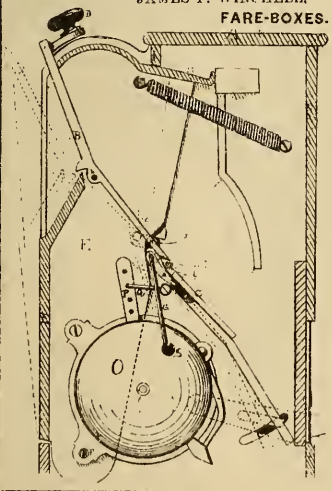
JAMES F. WINCHELL,

FARE-BOXES.



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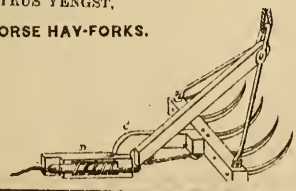
CYRUS YENGST,

HORSE HAY-FORKS.



116,001

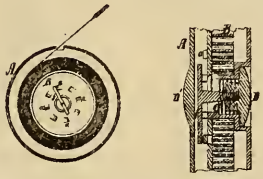
SHELDON P. GILBERT,

LIGATURES, PROTECTORS, AND FERTILIZING BAGS

4,119

LEWIS P. BRADLEY,

TAPE-MEASURES.



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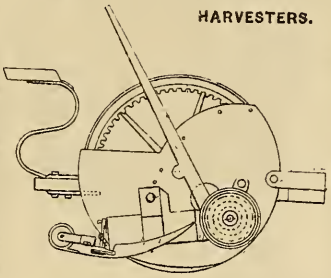
JOHN BUTTER,

HARVESTERS.



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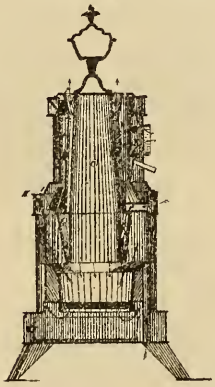
ALBERT C. CORSE,

BASE-BURNING STOVES.



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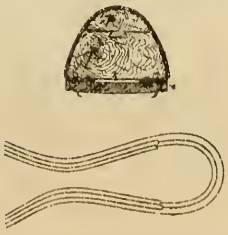
CHARLES STORY DUNBRACK,

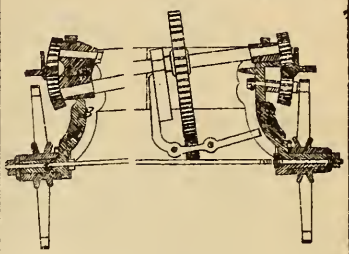
BOOTS AND SHOES.



4,123

MASSENA B. ERSKINE,

MOUNTED HORSE-POWERS.



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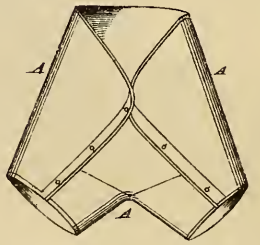
JOHN C. HEMPEL,

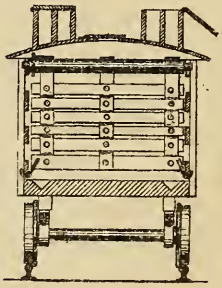
DIAPERS.



4,125

STOCK-CARS.

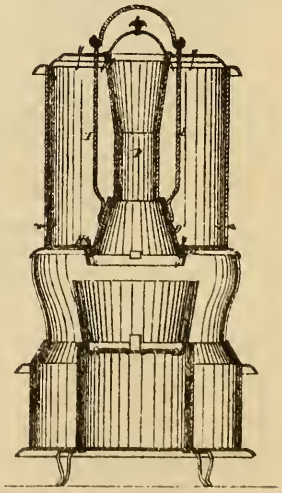
AMOS RANK



4,126

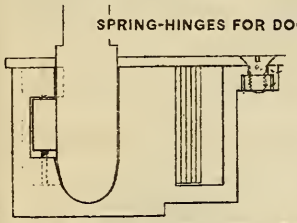
ALEXANDER WHITE,

BASE-BURNING STOVES.

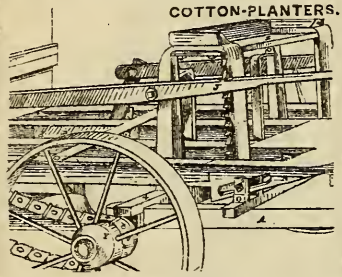


ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
JUNE 20, 1871.

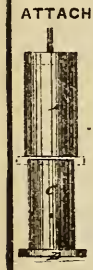
116,002 ROBERT ADAMS.
SPRING-HINGES FOR DOORS.



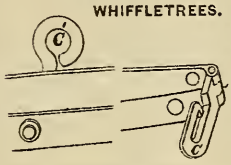
116,003 PARKER H. ALTSTATT.
COTTON-PLANTERS.



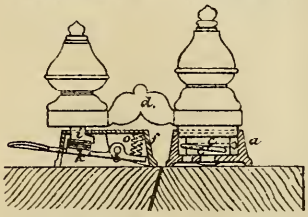
116,004 WILLIAM AMER.
ATTACHMENTS FOR VACUUM-CUPS.



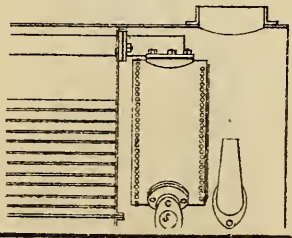
116,005 JOSEPH R. AMES,
WHIFFLETREES.



116,006 STEPHEN D. ARNOLD,
FASTENINGS FOR MEETING-RAILS



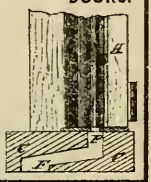
116,007 JOHN BOWMAN ATWATER.
STEAM-BOILERS.



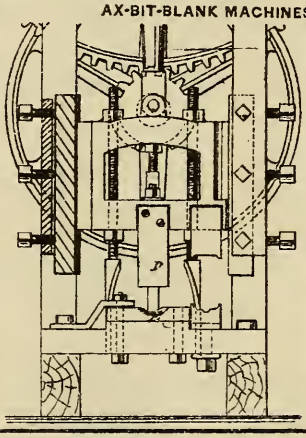
116,008 ISRAEL D. BALCH,
SOAP.

116,009 ROBERT R. BALL,
SASH-HOLDERS.

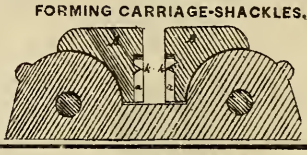
116,010 BENJAMIN F. BARKER.
DOORS.



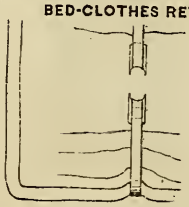
116,011 ENOS BARTHOLOMEW,
AX-BIT-BLANK MACHINES.



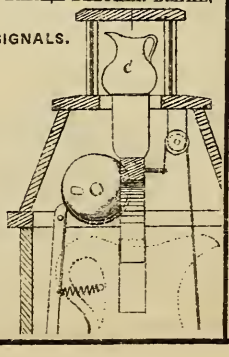
116,012 HENRY M. BEECHER,
FORMING CARRIAGE-SHACKLES.



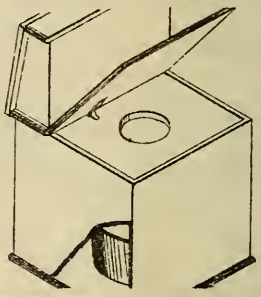
116,013 JOHN BIRKENHEAD,
BED-CLOTHES RETAINERS.



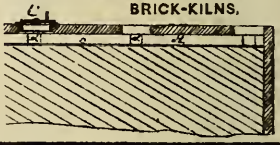
116,014 ELISHA BELCHER BLAKE,
MILKMEN'S SIGNALS.



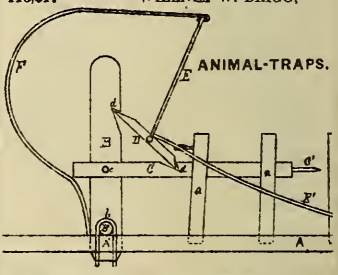
116,015 EARTH-CLOSETS.
WILLIAM JOSEPH BRADSHAW.



116,016 SAMUEL C. BREWER.
BRICK-KILNS.

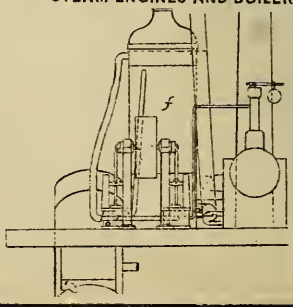


116,017 WILLIAM W. BRIGG,
ANIMAL-TRAPS.

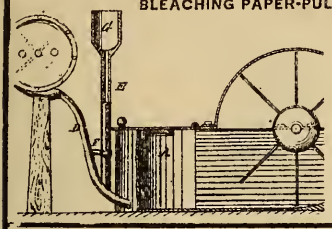


116,018 LEWIS BURGER.
OFFICE-INDICATORS.

116,019 GOTTLIEB F. BURKHARDT,
STEAM-ENGINES AND BOILERS.

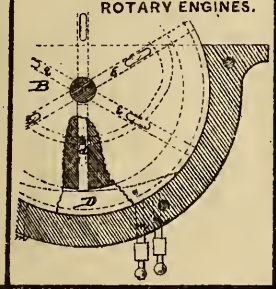


116,020 JOHN CAMPBELL,
BLEACHING PAPER-PULP.

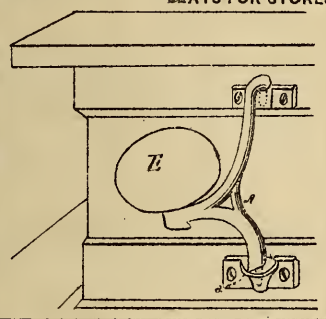


116,021 ALANSON CARY
TELEGRAPH-WIRE COUPLINGS.

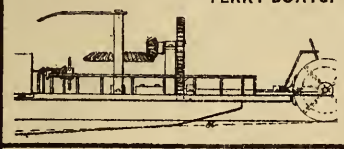
116,022
WARREN CASE,
ROTARY ENGINES.



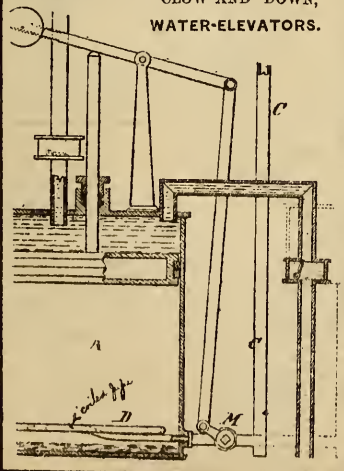
116,023 DANIEL CHRISTIAN,
SEATS FOR STORES.



116,024 HENRY CLENNY,
FERRY-BOATS.



116,025 CLOW AND DOWN,
WATER-ELEVATORS.



116,026 SETH L. COLE,
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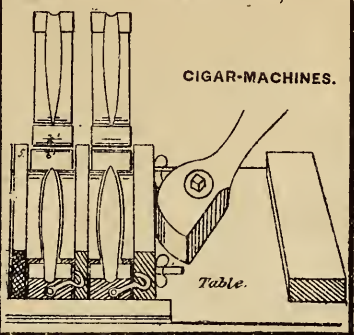
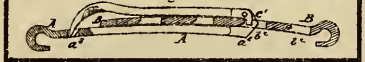
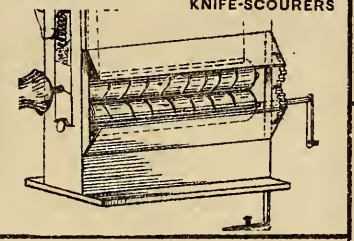


116,027
FREDERICK COULON,
BAND-KNIVES.

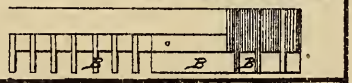
116,028
THOMAS CRAKES,
HARNESS-BUCKLES.



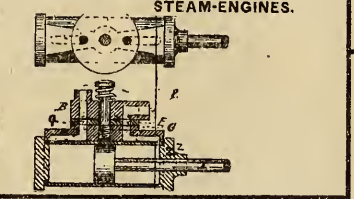
116,029 DAVID CROWELL, JR.,
KNIFE-SCOURERS



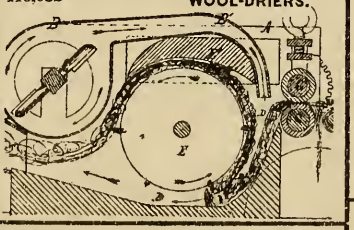
116,030 WILLIAM DEVINES,
SCRUBBING-BRUSHES.



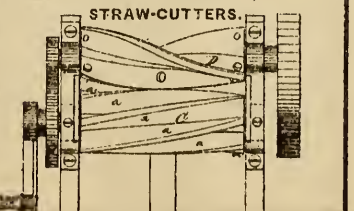
116,031 ALBERT L. DEWEY.
STEAM-ENGINES.



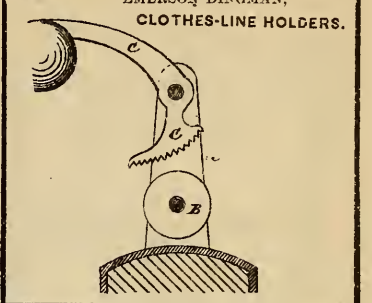
116,032 JAMES MILLEN DICK,
WOOL-DRIERS.



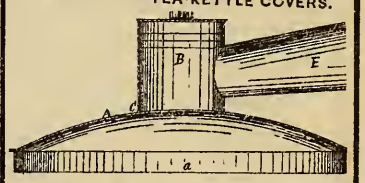
116,033 JOHN H. DICKINSON,
STRAW-CUTTERS.



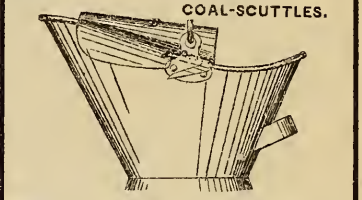
116,034 EMERSON DINGMAN,
CLOTHES-LINE HOLDERS.



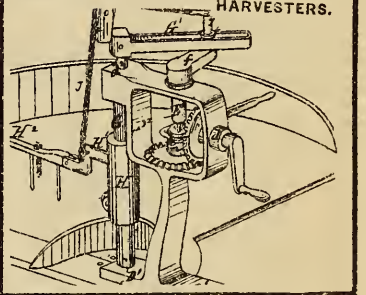
116,035 ZOHRAB DIXON.
TEA-KETTLE COVERS.



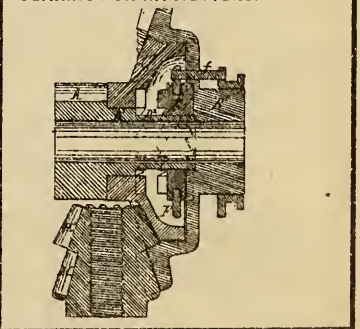
116,036 EDGAR ELTINGE,
COAL-SCUTTLES.



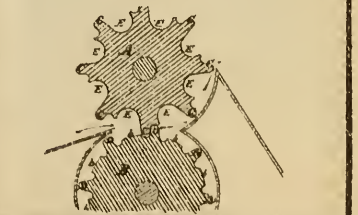
116,037 JOEL FARRINGTON,
HARVESTERS.



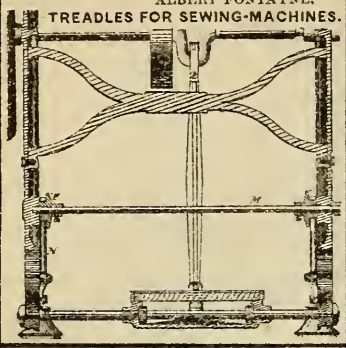
116,038 JOEL FARRINGTON
GEARING FOR HARVESTERS.



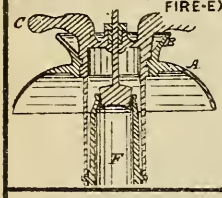
116,039 MOORE R. FLETCHER,
PULP-ENGINES OR CRUSHERS.



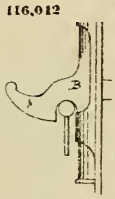
116,040 ALBERT FONTAYNE, TREADLES FOR SEWING-MACHINES.



116,041 FORD AND KLEY, FIRE-EXTINGUISHERS.



116,042

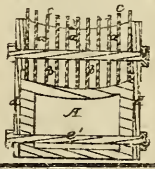


CHARLES W. FOX, GATE-LATCHES.

116,043 CHARLES H. FRINGS, FERMENTING MASHES.

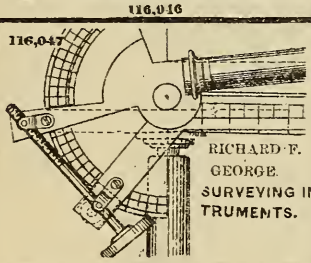
116,044 CHARLES H. FRINGS, PREVENTING WASTE OF ALCOHOL IN FERMENTING-TANKS.

116,045 PHINEAS FROST, PAPER-PULP ENGINES.

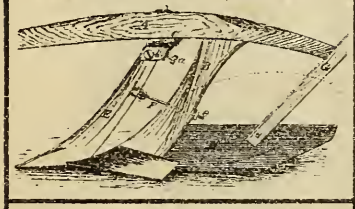


JAMES FROWEN, EDWARD HEMMINGS, AND JAMES SHELDON, MANUFACTURING NAIL-PLATES AND SHEET-STRIPS. 116,046

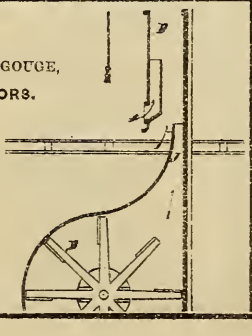
116,047 RICHARD F. GEORGE, SURVEYING INSTRUMENTS.



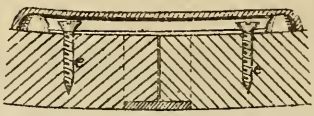
116,048 MARTIN L. GIBBS, PLOWS.



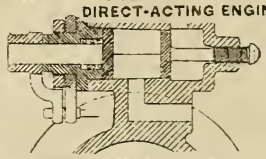
116,049 HENRY A. GOUGE, VENTILATORS.



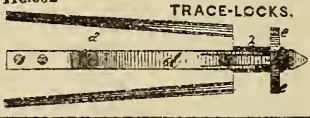
116,050 DAVID GRIM, FELLY-CLIPS



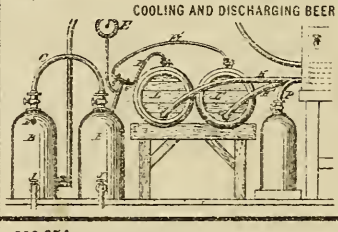
116,051 THOMAS HANSON, DIRECT-ACTING ENGINES.



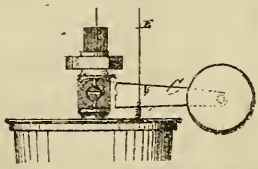
116,052 GEORGE L. HART, TRACE-LOCKS.



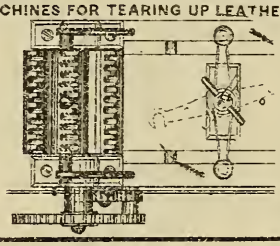
116,053 JOHN M. HEISS, COOLING AND DISCHARGING BEER



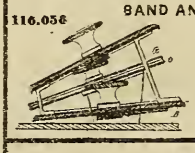
116,054 HEYL AND DIEHL, GAS-LIGHTING APPARATUS.



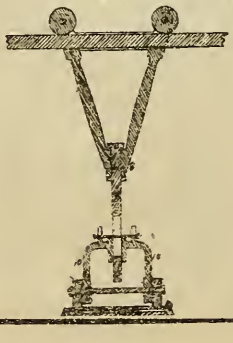
116,055 EDWARD S. HIDDEN, MACHINES FOR TEARING UP LEATHER.



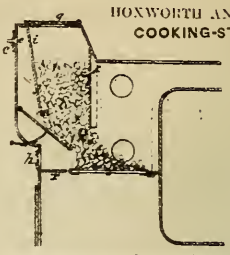
ELIJAH LEAVITT HOWARD, 116,056 SAND AND EDGING-GUIDES



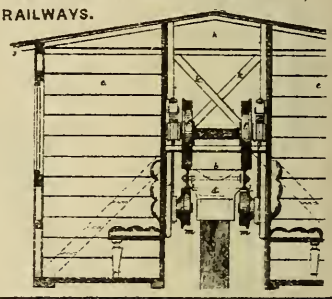
116,057 PATRICK HOWE, CLOTH-PRESSING MACHINES.



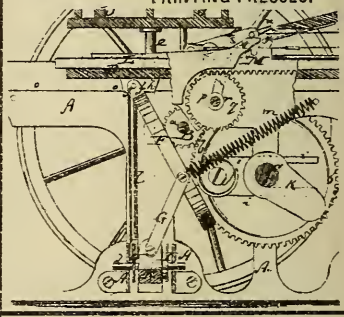
116,058 HOXWORTH AND LA RUE, COOKING-STOVES.



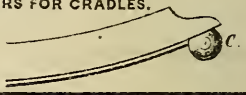
116,059 HENRY TEMPLE HUMPHREYS, RAILWAYS.



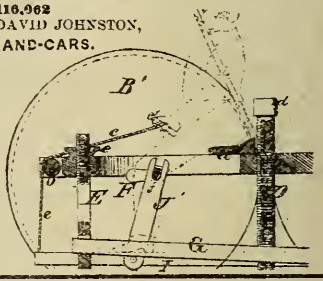
116,060 TRUMAN H. IDE, PRINTING-PRESSES.



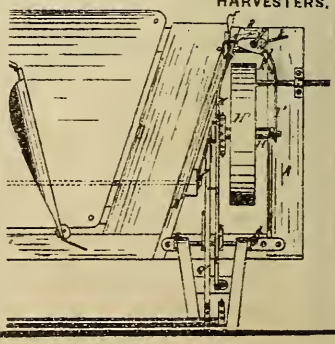
116,061 RICHARD A. JACKSON, ROCKERS FOR CRADLES.



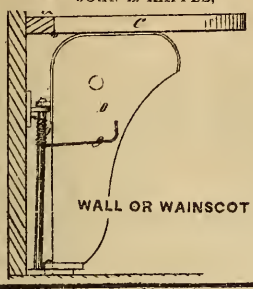
116,062 DAVID JOHNSTON, HAND-CARS.



116,063 JOHNSTON AND JENNER, HARVESTERS.



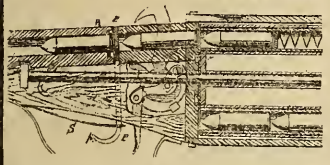
116,064 JOHN L. KAPPLE,



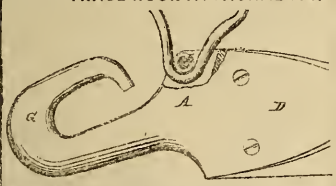
WALL OR WAINSCOT CHAIRS.

116,065
WILLIAM H. KIMBALL,
REFINING IRON AND STEEL.

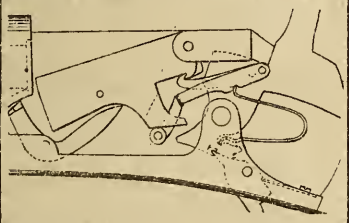
116,066 JOHN L. KIRK,
MAGAZINE FIRE-ARMS.



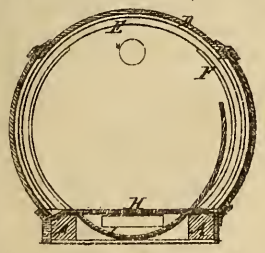
116,067 KOOK AND SHRAWDER,
TRACE-HOOK ATTACHMENTS.



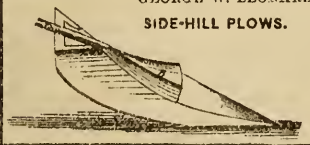
116,068 JAMES LEE,
BREECH-LOADING FIRE-ARMS.



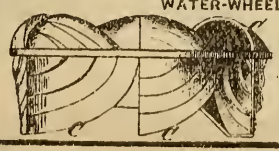
116,069 JOHN E. LEEPER, CARS.



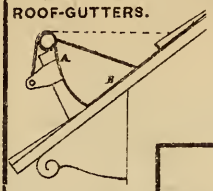
116,070
GEORGE W. LEONARD,
SIDE-HILL PLOWS.



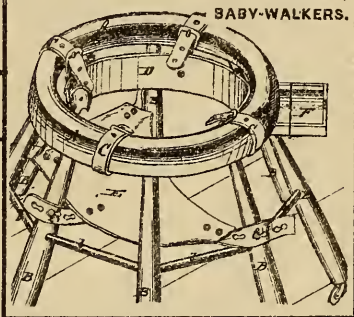
116,071
GEORGE W. LEONARD,
WATER-WHEELS.



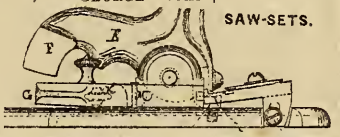
116,072 JAMES F. LOCKWOOD,
ROOF-GUTTERS.



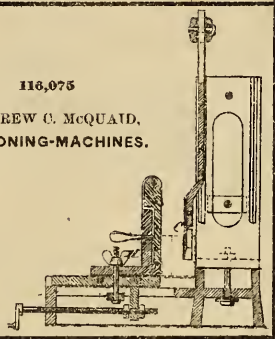
116,073
CONRAD MASCHMANN,
BABY-WALKERS.



116,074
GEORGE W. MAY,
SAW-SETS.



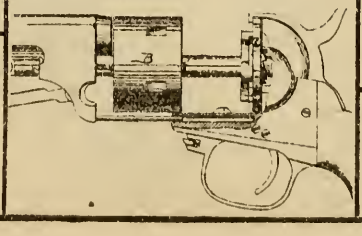
116,075
ANDREW C. McQUAID,
TENONING-MACHINES.



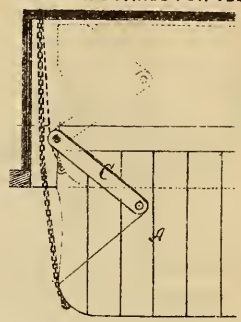
116,076
CHARLES MORRILL,
MEETING-RAILS
OF SASHES.

116,077
JAMES A. MORRISON,
WRENCHES AND
PIPE-TONGS.

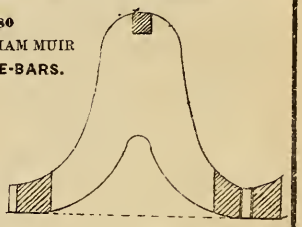
116,078
MOSS AND JOHNSON,
REVOLVING FIRE-ARMS.



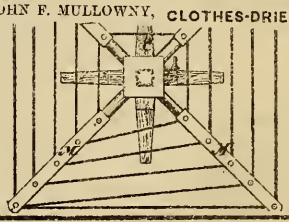
116,079 JOHN J. MOULE,
CENTER-BOARDS FOR VESSELS.



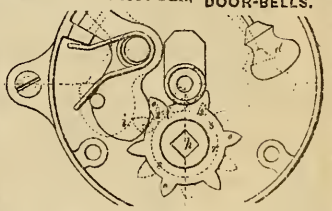
116,080
WILLIAM MUIR
GRATE-BARS.



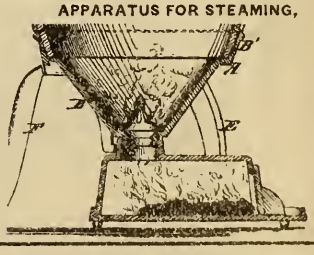
116,081
JOHN F. MULLOWNY, CLOTHES-DRIERS.



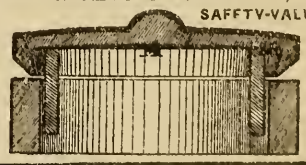
116,082
WALLACE T. MUNGER, DOOR-BELLS.



116,083 JOHN MURDOCK,
APPARATUS FOR STEAMING,

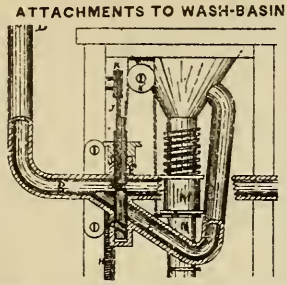


116,084 ADOLPHUS F. W. NEYNABER,
SAFETY-VALVES



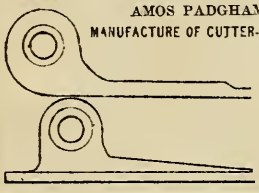
116,085
WILLIAM H. NICHOLS,
SLEIGH-BELLS.

116,086 FREDERICK NORBOE,
ATTACHMENTS TO WASH-BASINS.

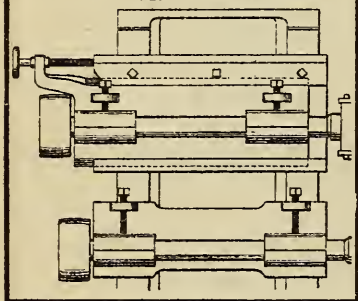


116,087 JOHN AUGUST OSTBURG,
BUTTON-NEEDLES AND FASTENERS.

116,088 AMOS PADGHAM,
MANUFACTURE OF CUTTER-BAR HEADS

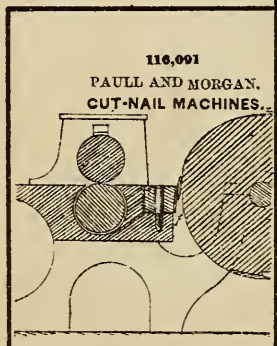


116,089 GEORGE W. PASSEL,
TENONING-MACHINES.

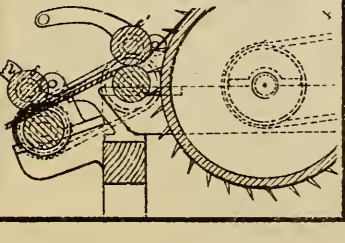


116,090 WILLIAM S. PATTIN,
EXTENSION-SHANKS FOR BORING-BITS.

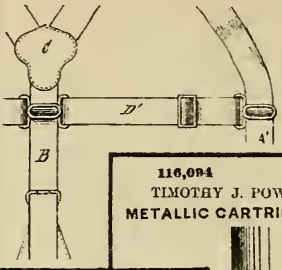
116,091 PAULL AND MORGAN,
CUT-NAIL MACHINES.



116,092 GEORGE W. PITTMAN,
HEMP-HATCHELING MACHINES.

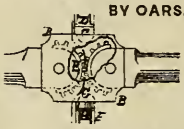


116,093 POTTER AND SMITH,
SUSPENDER AND SHOULDER-BRACES.

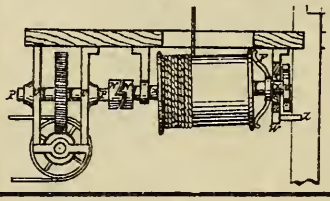


116,094 TIMOTHY J. POWERS,
METALLIC CARTRIDGES.

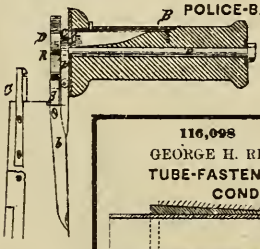
116,095 THOMAS G. PRINGLE,
PROPELLING BOATS BY OARS.



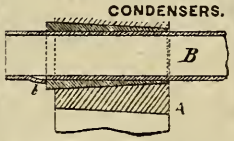
116,096 HENRY J. REEDY,
HOISTING-MACHINES.



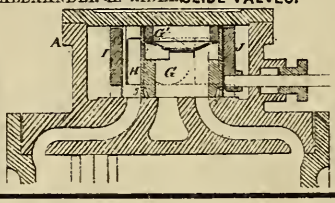
116,097 HENRY C. REICHARD,
POLICE-BATONS.



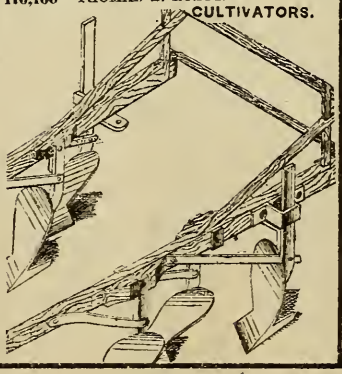
116,098 GEORGE H. REYNOLDS,
TUBE-FASTENINGS OF CONDENSERS.



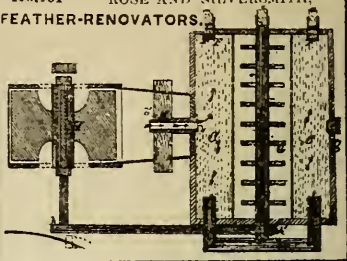
116,099 ALEXANDER K. RIDER,
SLIDE-VALVES.



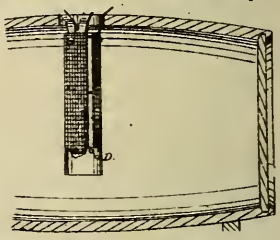
116,100 THOMAS B. ROBERTS,
CULTIVATORS.



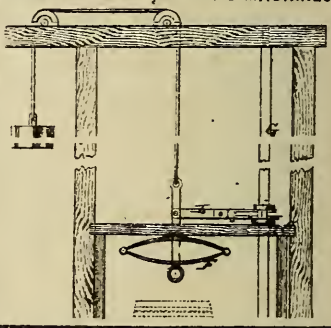
116,101 ROSE AND SILVERSMITH,
FEATHER-RENOVATORS.



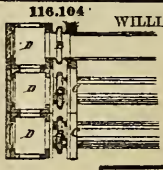
116,102 GEORGE L. RUNDLE,
TREATMENT OF SACCHARINE LIQUIDS.



116,103 WILLIAM T. SANDS,
HOISTING-MACHINES.

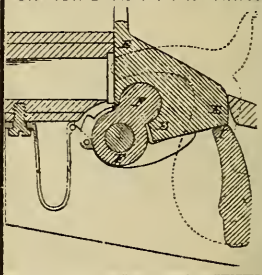


116,104 WILLIAM P. SKIFFINGTON,
BOILERS.

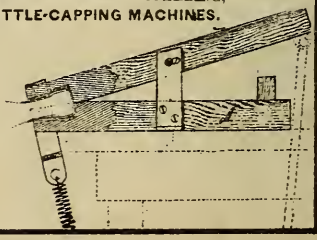


116,105 WILLIAM S. SMOOT,
METALLIC CARTRIDGES.

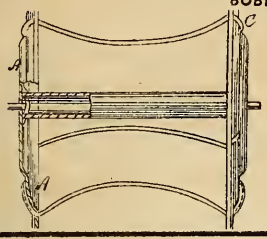
116,106 WILLIAM S. SMOOT,
BREECH-LOADING FIRE-ARMS.



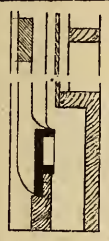
116,107 WILLIAM H. SPERLING,
BOTTLE-CAPPING MACHINES.



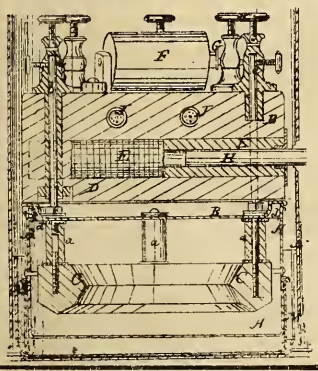
116,108 JOHN N. STEARNS, BOBBINS.



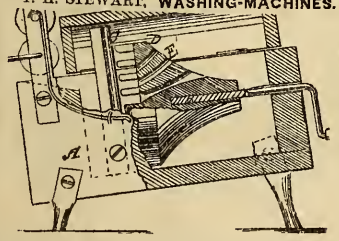
116,109 GEORGE STECK, GRAND PIANOS.



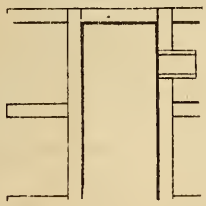
116,110 ALBERT J. STEELE, MEDICAL APPARATUS



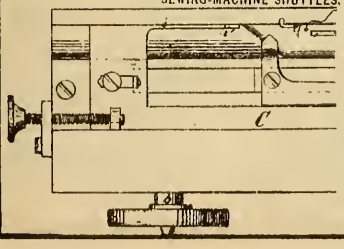
116,111 T. H. STEWART, WASHING-MACHINES.



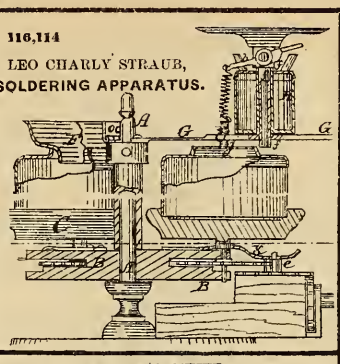
116,112 LIVINGSTON STONE, FISH-HATCHING APPARATUS.



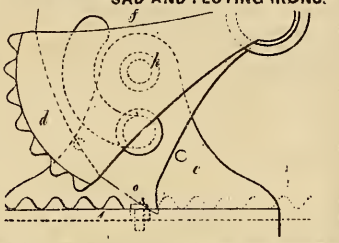
116,113 JOSEPH W. STRANGE SEWING-MACHINE SHUTTLES.



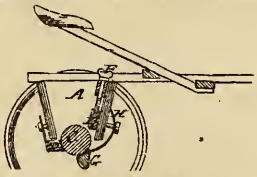
116,114 LEO CHARLY STRAUB, SOLDERING APPARATUS.



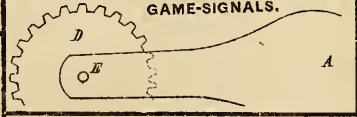
116,115 JOSHUA E. SWIFT, SAD AND FLUTING IRONS.



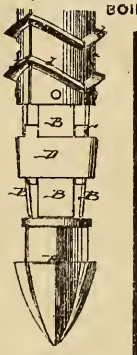
116,116 N. G. SWIFT, SOWING PULVERULENT MANURES.



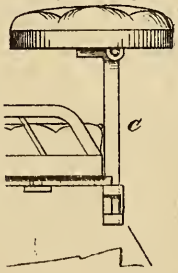
116,117 WILLIAM M. TILESTON, GAME-SIGNALS.



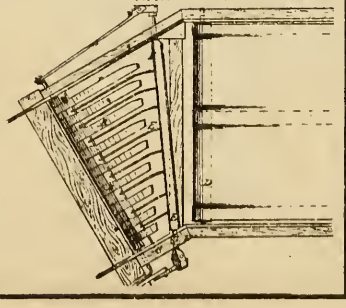
116,118 HERMANN VOELKER, BOILER-FLUE SCRAPERS.



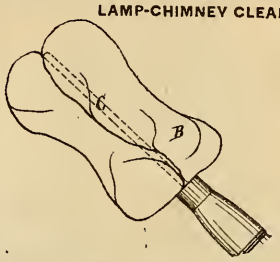
116,119 HENRY WAHLSTEDT, WAGON-SEATS.



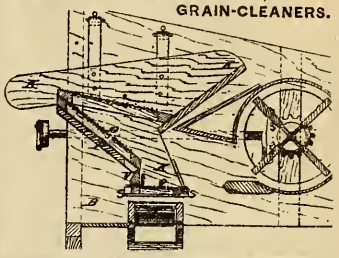
116,120 WALLIS AND WALLIS, HARVESTER-DROPPERS.



116,121 LEWIS WARD, LAMP-CHIMNEY CLEANERS.

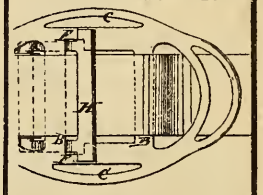


116,122 JOHN H. WEAVER, GRAIN-CLEANERS.

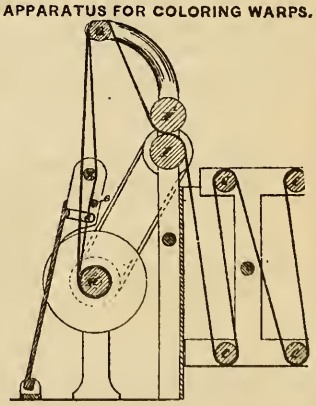


116,123 DAVID WEBBER, ROUNDERS FOR REINS.

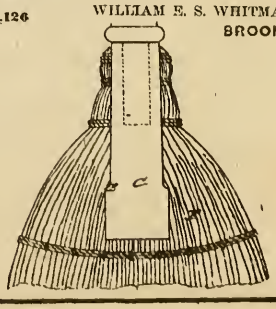
116,124 DAVID WEBBER, BUCKLES.



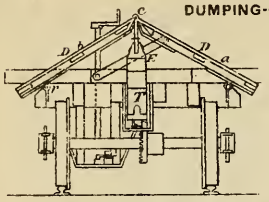
116,125 NELSON D. WHITE, APPARATUS FOR COLORING WARPS.



116,126 WILLIAM E. S. WHITMAN, BROOMS.

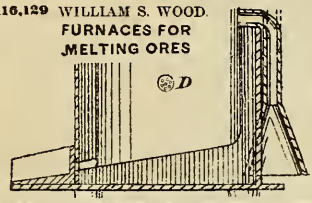


116,127 JACOB C. WISWELL. DUMPING-CARS.

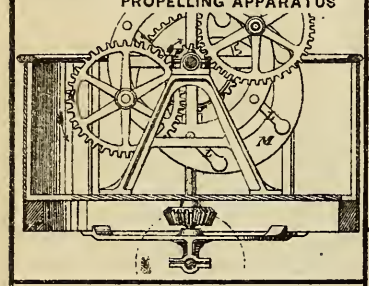


116,128 DAVID LUDWIG WOLFF. FLOOR-COVERINGS. ROOFS

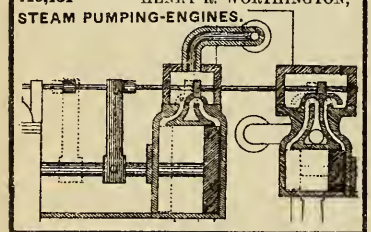
116,129 WILLIAM S. WOOD. FURNACES FOR MELTING ORES



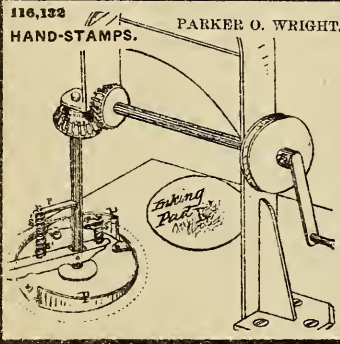
116,130 JACOB WOOLF, PROPELLING APPARATUS



116,131 HENRY R. WORTHINGTON, STEAM PUMPING-ENGINES.

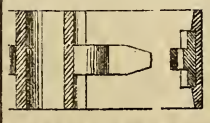


116,132 PARKER O. WRIGHT. HAND-STAMPS.



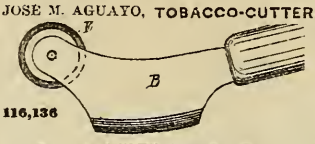
116,133 RUFUS WRIGHT. FOLDING EASELS.

116,134 JAMES YOCOM, JR. SPLIT CASTINGS.



116,135 WILLIAM J. ANDREWS, CURE OF SPAVIN.

JOSE M. AGUAYO, TOBACCO-CUTTERS.

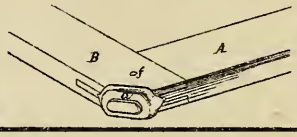


116,136

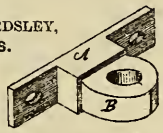
116,138 WILLIAM C. BARKER, BUCKETS FOR CHAIN-PUMPS.

116,137 WILLIAM HENRY BALMAIN, MANUFACTURE OF GLASS.

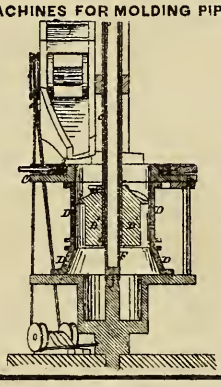
116,139 WILLIAM N. BARTHOLOMEW, SLATE-FRAMES.



116,140 CHARLES T. BEARDSLEY, BROOM-HOLDERS.

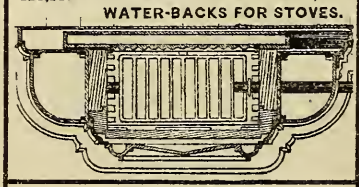


116,141 BENJAMIN S. BENSON MACHINES FOR MOLDING PIPES.

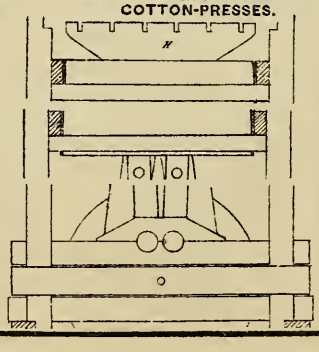


116,142 CARL FREDERICH BINDER, PURIFYING PYROLIGNEOUS ACID.

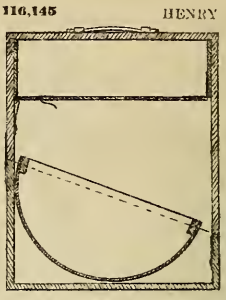
116,143 ABNER J. BLANCHARD, WATER-BACKS FOR STOVES.



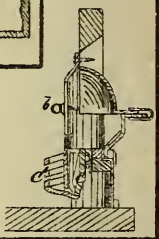
116,144 JAMES P. BOLIN. COTTON-PRESSES.



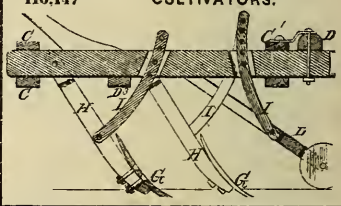
116,145 HENRY BRAUMHOLD, FUR-BOXES.



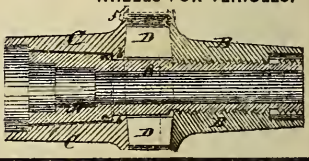
116,146 PHILLIP BRECHER, FIRE-PLACES.



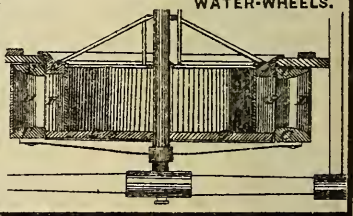
THOMAS E. C. BRINLY. 116,147 CULTIVATORS.



116,148 MARSHALL R. BROWN, WHEELS FOR VEHICLES.

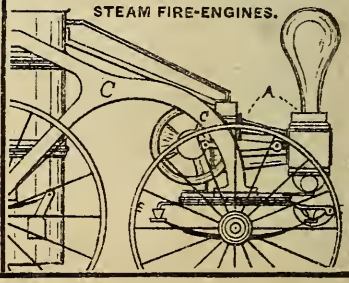


116,149 ROBERT BUCHANAN. WATER-WHEELS.

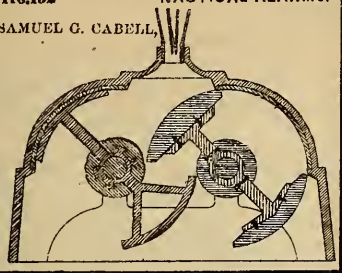


116,150 CHARLES M. BURNS, SASH-HOLDERS.

116,151 BUTTON AND BUTTON, STEAM FIRE-ENGINES.

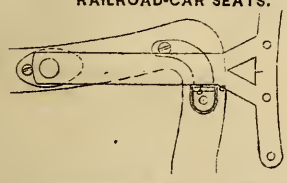


116,152 NAUTICAL ALARMS.
SAMUEL G. CABELL,



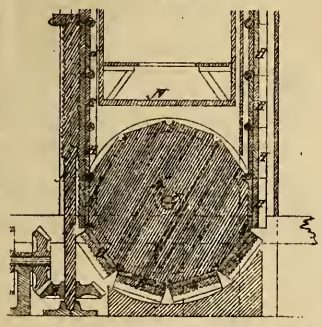
116,153 MILO CARPENTER,
HINGED HAY-RACKS.

116,154 DEXTER H. CHAMBERLAIN,
RAILROAD-CAR SEATS.

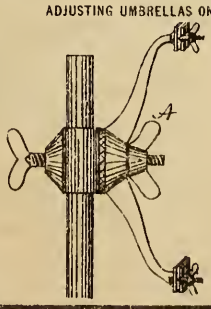


116,155 DEXTER H. CHAMBERLAIN,
TAPS OR FAUCETS FOR BOTTLES.

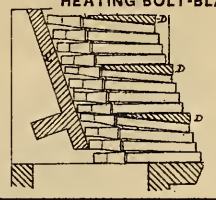
116,156 DEXTER H. CHAMBERLAIN,
ELEVATORS.



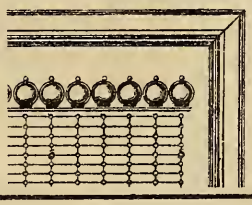
116,157 GEORGE F. CHILD,
ADJUSTING UMBRELLAS ON VEHICLES.



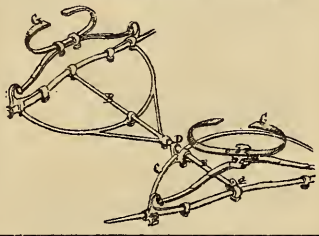
116,158 JAMES B. CLARK,
HEATING BOLT-BLANKS.



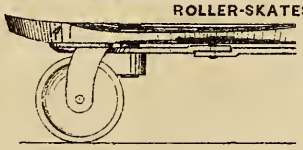
116,159 HUGH W. COLLENDER.
POOL-BOARDS.



116,160 JAMES L. CORBUS.
RUNNING-GEARS FOR VEHICLES.

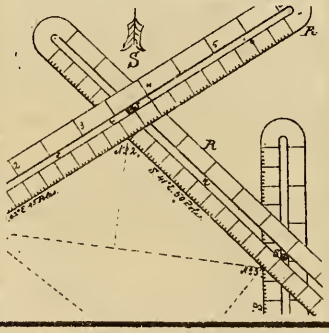


116,161 ALLEN THOMPSON COVELL
ROLLER-SKATES.

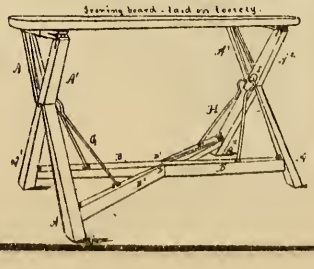


116,162
JAMES M. COWLES, IN SASH-HOLDERS.

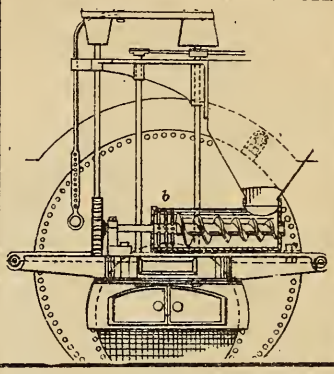
116,163 JAMES E. CRUPPER.
PLOTTING INSTRUMENTS.



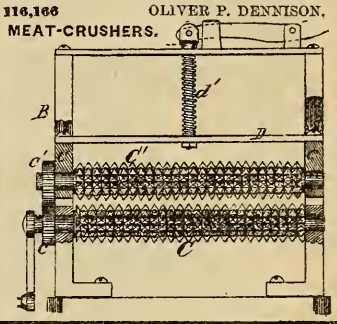
116,164 JOSEPH DALY,
FOLDING-TABLE SUPPORTS.



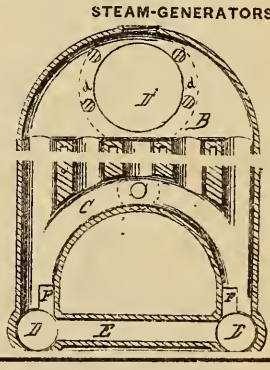
116,165 GEORGE FREDERICK DEACON,
FEEDING FURNACES WITH FUEL.



116,166 OLIVER P. DENNISON,
MEAT-CRUSHERS.

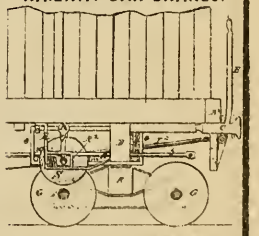


116,167 ERASMUS P. DOYEN.
STEAM-GENERATORS.

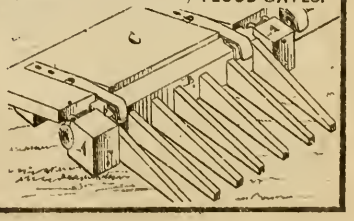


116,168 GEORGE DRAPER,
HOLDING SPINNING-BOBBINS ON SPINDLES.

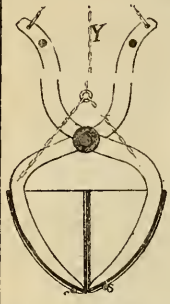
116,169
CHARLES B. EATON,
RAILWAY-CAR BRAKES.



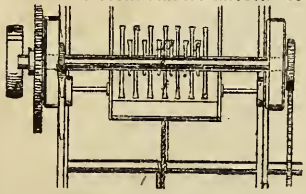
116,170
JOSEPH W. EDGERTON, FLOOD-GATES.



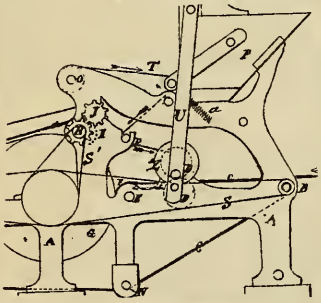
116,171 ALBERT C. ELLITHORPE DREDGING-SCOOPS.



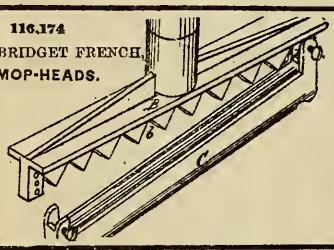
116,172 ALBERT C. ELLITHORPE, MORTAR-MIXING MACHINES.



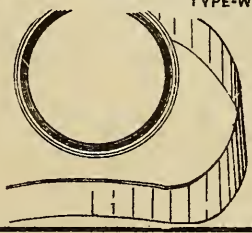
116,173 MAURICE FITZGIBBONS. MACHINES FOR PASTING PAPER



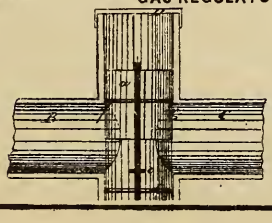
116,174 BRIDGET FRENCH, MOP-HEADS.



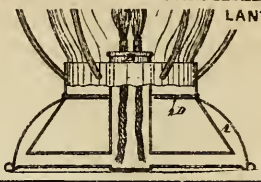
116,175 ROBERT H. GALLAHER, TYPE-WHEELS



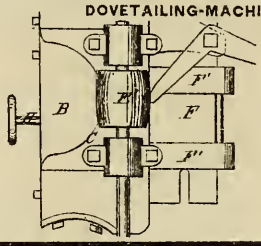
116,176 HENRY GERNER GAS-REGULATORS.



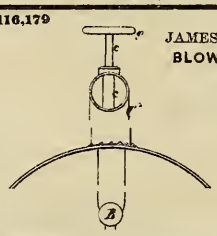
116,177 GRIDLEY AND ENGELSKERCHEN, LANTERNS.



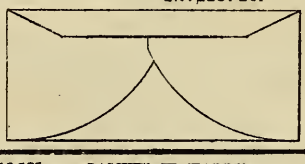
116,178 GRIFFIN AND WILKINS, DOVETAILING-MACHINES.



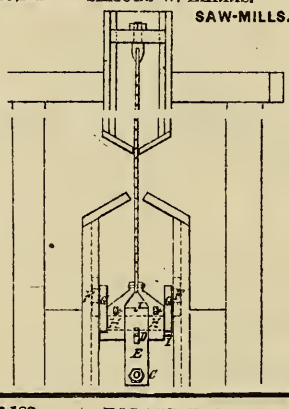
116,179 JAMES S. GRIFFITH. BLOW-OFF PIPES



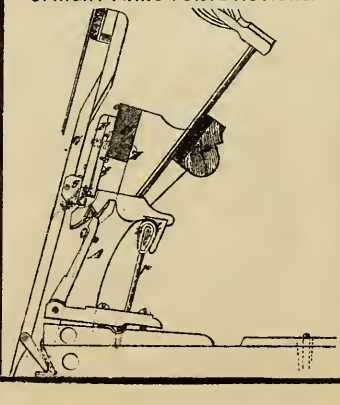
116,180 J. WILLIAM GROOMES. ENVELOPES.



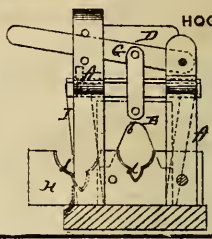
116,181 SAMUEL W. HARRIS. SAW-MILLS.



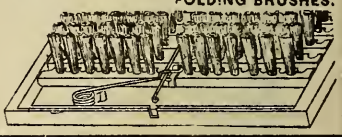
116,182 A. HORACE HASTINGS, UPRIGHT PIANO-FORTE ACTIONS.



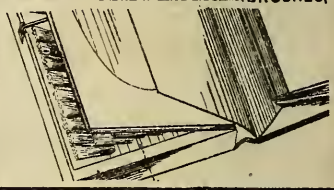
116,183 HAYS AND SCOTT. HOG-STOCKS.



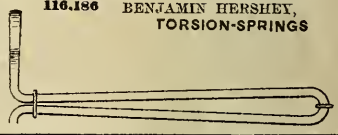
116,184 PETER HENRICHS, FOLDING BRUSHES.



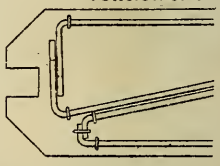
116,185 PETER HENRICHS. BRUSHES.



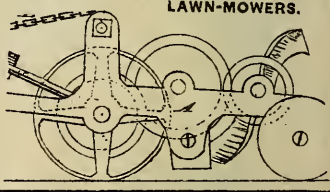
116,186 BENJAMIN HERSHEY, TORSION-SPRINGS



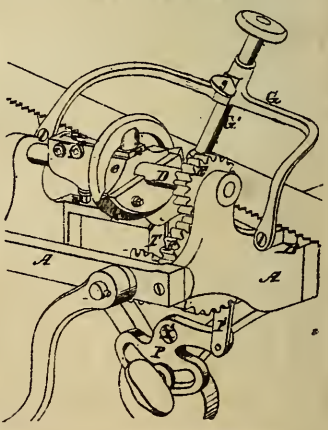
116,187 HERSHEY AND GAGGIN, TORSION-SPRINGS



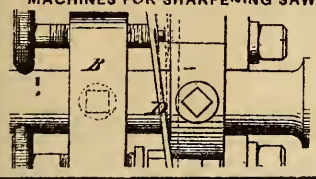
116,188 AMARIAH M. HILLS, LAWN-MOWERS.



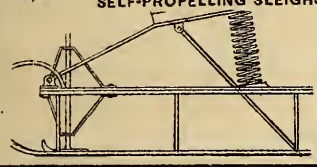
116,189 HINES AND BEYER, MACHINES FOR SHARPENING SAWS.



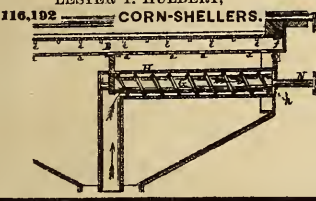
116,190 HINES AND BEYER, MACHINES FOR SHARPENING SAWS.



116,191 CHARLES H. HUDSON, SELF-PROPELLING SLEIGHS.

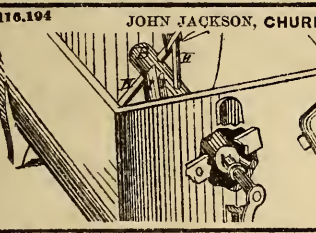


116,192 LESTER T. HULBERT, CORN-SHELLERS.

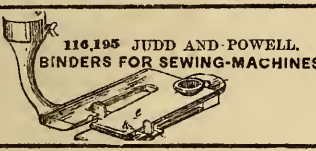


116,193 WILLIS M. HUNT, WHEELS FOR VEHICLES.

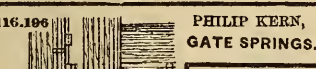
116,194 JOHN JACKSON, CHURNS.



116,195 JUDD AND POWELL, BINDERS FOR SEWING-MACHINES.



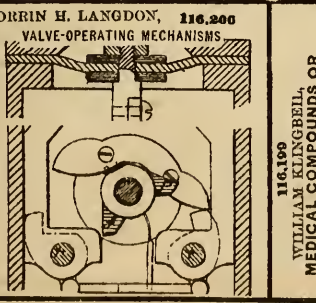
116,196 PHILIP KERN, GATE SPRINGS.



116,197 JEROME KIDDER, SPONGE-HOLDERS

116,198 ROBERT KIRK, VIOLIN TAIL-PIECES.

ORRIN H. LANGDON, 116,200 VALVE-OPERATING MECHANISMS.



116,199 WILLIAM KLINGBEIL, MEDICAL COMPOUNDS OR EYE BALSAMS.

116,201 CARL G. LARSON, BESSEMER PROCESS OF TREATING IRON.

116,202 NATHAN LONG, GATES.

116,203 JAMES MACFARLANE, SILK-WINDING APPARATUS.

116,204 SUGAR-COATING PILLS. FREDERICK MARRIOTT.

116,205 MICHAEL MARTIN, VELOCIPEDES.

116,206 JOSEPH H. MASON, FORGING CARRIAGE-SPRING HEADS.

116,207 ALONZO D. McMASTER COAL-SIFTERS.

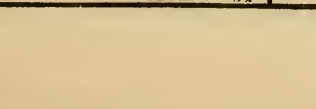
116,208 ANDREW W. MITCHELL, SCROLL-SAWING MACHINES.

116,209 MATTHIAS K. MORRIS, WASHING-MACHINES.

116,211 ADOLPH MULLER, DYEING AND COLORING FURS.

ERI SEWELL MOULTON, 116,210 PIPE-CUTTERS.

116,212 WILSON NEWCOMB, TACKLE-HOOKS.



116,214 TANNIS A. OLSON. DOOR-LOCKS.

116,213 WILLIAM F. NILES AND SETH G. PITTS, MANUFACTURE OF ARTICLES FROM PULVERIZED HORN.

116,215 EMOGENE L. PARSONS, COMPOUNDS FOR CURLING HAIR.

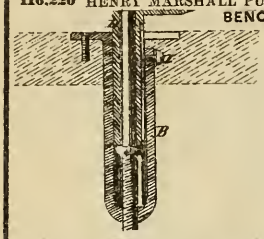
GEORGE H. PRATT, 116,216 CLIPPING-SHEARS.

116,217 SHUBEAL C. PRESCOTT, CONCRETE PAVEMENTS.

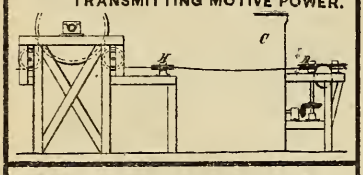
116,218 TREAT T. PROSSER, FORMING SPIRAL GROOVES ON METALLIC RODS.

MAKING METALLIC SHOE-PEGS. 116,219 TREAT T. PROSSER.

116,220 HENRY MARSHALL PUTNAM.
BENCH-HOOKS.

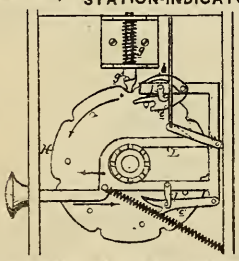


116,221 JAMES RICHMOND.
TRANSMITTING MOTIVE POWER.

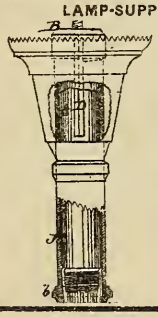


116,222 MARTIN REISLEY,
SPECTACLE-FRAMES.

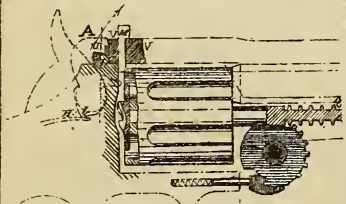
116,223 AMOS CHARLES RODGERS,
STATION-INDICATORS.



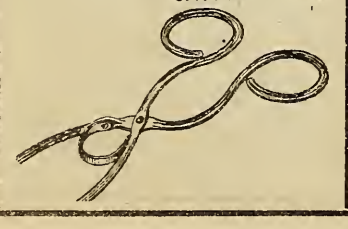
116,224 RUSSELL AND PLATT,
LAMP-SUPPORTERS.



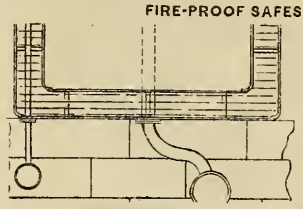
116,225 GEORGE W. SCHOFIELD,
BREECH-LOADING FIRE-ARMS.



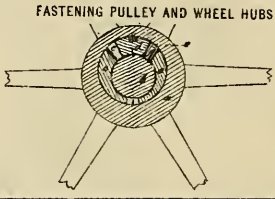
116,226 ABRAHAM H. SEIPT,
SPITTOON-TONGS.



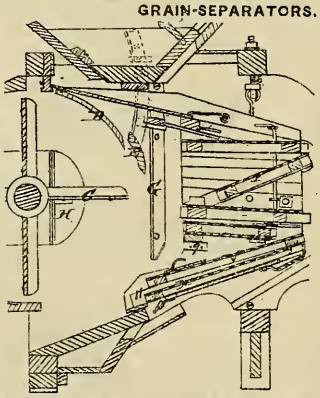
116,227 WILLIAM HAMELTON SHORT,
FIRE-PROOF SAFES.



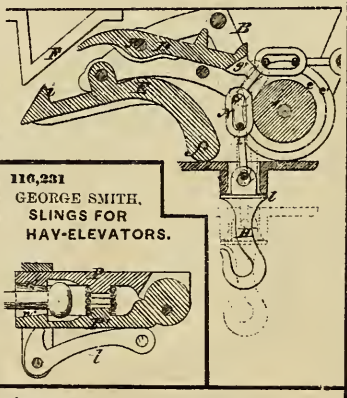
116,228 EDWARD G. SHORTT,
FASTENING PULLEY AND WHEEL HUBS



116,229 MARTIN SHREINER,
GRAIN-SEPARATORS.

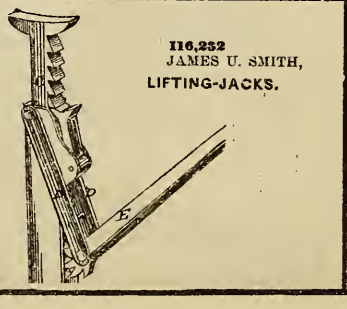


116,230 GEORGE SMITH,
CARRIERS FOR UNLOADING HAY.

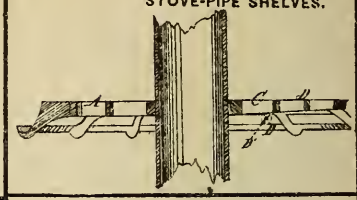


116,231 GEORGE SMITH,
SLINGS FOR
HAY-ELEVATORS.

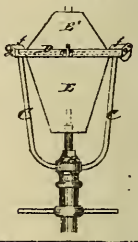
116,232 JAMES U. SMITH,
LIFTING-JACKS.



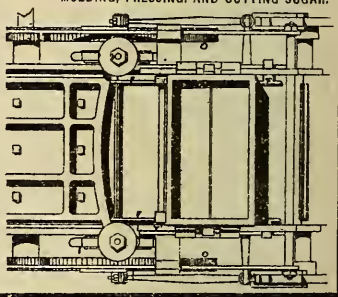
116,233 MILO SMITH,
STOVE-PIPE SHELVES.



116,234 ROLAND H. SMITH.
STREET-LAMPS.

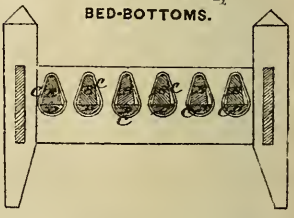


116,235 SPRECKELS AND PETERSON,
MOLDING, PRESSING, AND CUTTING SUGAR.

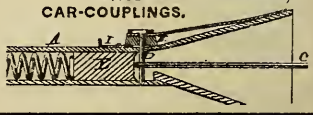


116,236 JOHN S. STITES,
PROPULSION OF VESSELS.

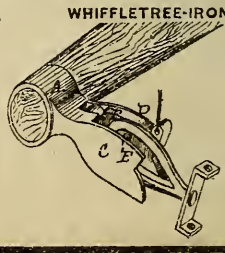
116,237 MOSES B. TOWSLEE,
BED-BOTTOMS.



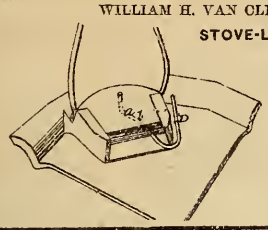
116,238 HARVEY TREFRY,
CAR-COUPLINGS.



WILLIAM WALLACE URQUHART,
116,239 WHIFFLETREE-IRONS.



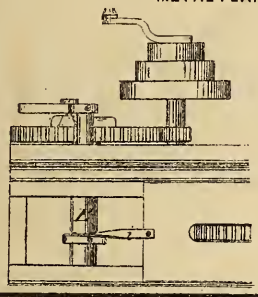
116,240 WILLIAM H. VAN CLEVE, STOVE-LEGS.



116,241 CHARLES VOLGER, CALL-BELLS.

116,242 MICHAEL WAGNER, PENS.

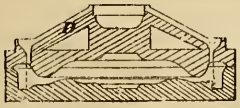
116,243 WILLIAM H. WARREN, METAL-PLANERS.



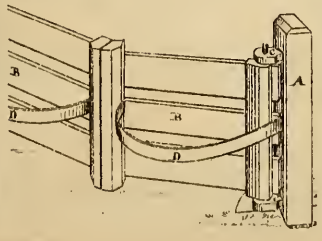
116,244 ALBIN WARTH, TAPS FOR LIQUID PACKAGES.

116,245 ALBIN WARTH, TAPS FOR LIQUID PACKAGES.

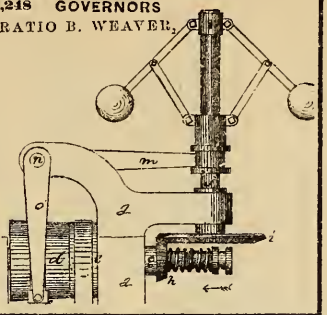
116,246 NATHAN WASHBURN, MOLDS FOR CASTING CAR-WHEELS.



116,247 HENRY O. WAY, FLOOD-GATES.

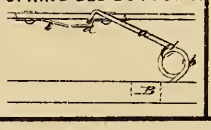


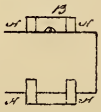
116,248 GOVERNORS HORATIO B. WEAVER,



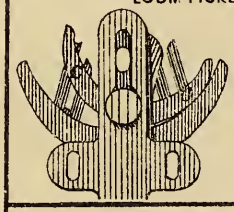
116,249 JOSEPH WILKS. STAIR-RODS.

116,250 EDWIN L. WRIGHT, SPRING BED-BOTTOMS.

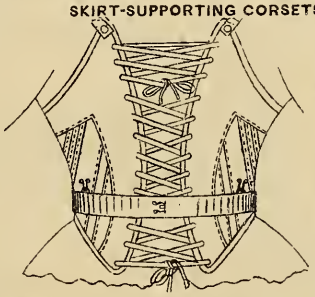




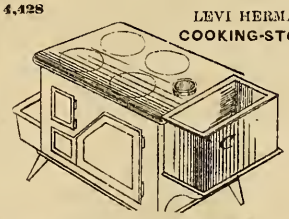
116,251 JOHN C. FISHER. LOOM PICKER-MOTIONS.



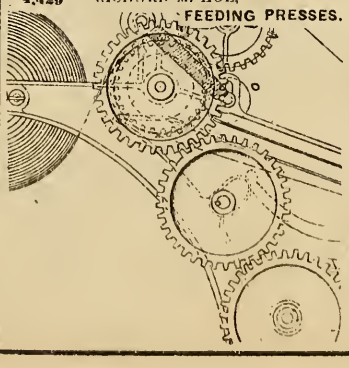
4,427 CATHRINE ALLSOP GRISWOLD SKIRT-SUPPORTING CORSETS.



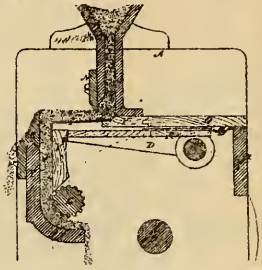
4,428 LEVI HERMANCE COOKING-STOVES.



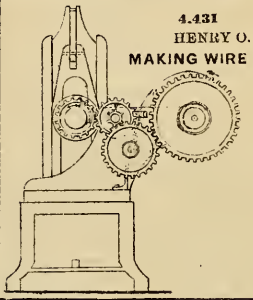
4,429 RICHARD M. HOE, FEEDING PRESSES.



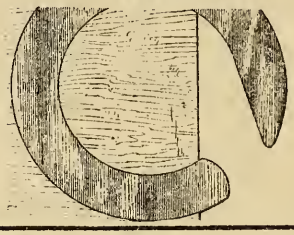
4,430 STEPHEN E. KROM MACHINES FOR SEPARATING ORES.



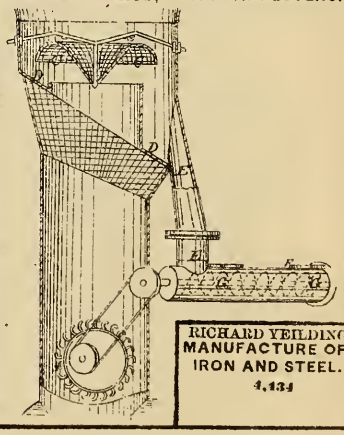
4,431 HENRY O. LOTHROP, MAKING WIRE FERRULES.



4,432 ANN M. RODEFER. BEDSTEAD-FASTENINGS.

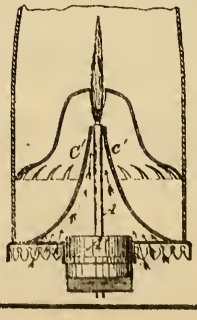


4,433 EDWARD WAUD, SPARK-ARRESTERS.



RICHARD YEILDING MANUFACTURE OF IRON AND STEEL. 4,434

4,435 WILLIAM H. GRAY, LAMP-BURNERS.



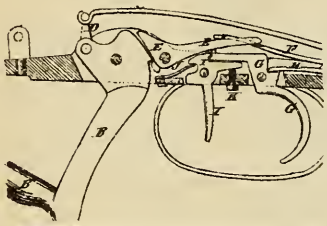
ILLUSTRATIONS OF PATENTS

ISSUED FROM

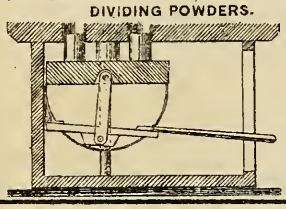
THE UNITED STATES PATENT OFFICE

JUNE 27, 1871.

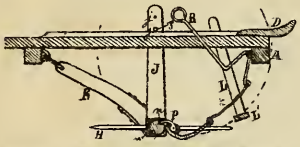
116,252 JOSHUA ALBRIGHT GUN-LOCKS.



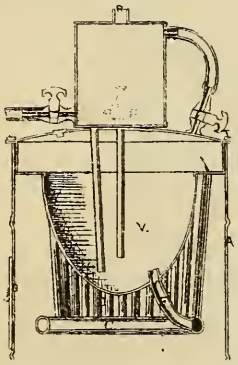
116,253 GEORGE P. ALLEN, DIVIDING POWDERS.



116,254 FRANCIS ANDREWS, HORSE HAY-RAKES.

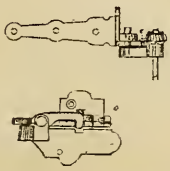


116,255 STEAM-BOILERS. ANTISDELL, CRONK, AND HAVILAND.

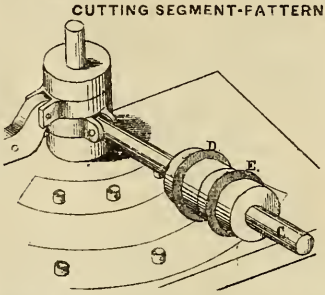


116,256 WILLIAM E. BABCOCK. CLAPBOARD-GAUGES.

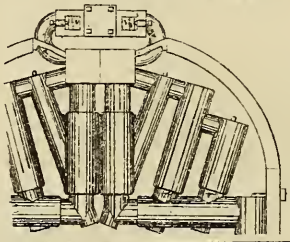
116,257 ASAHEL O. BATCHELDER, BLIND-FASTENERS.



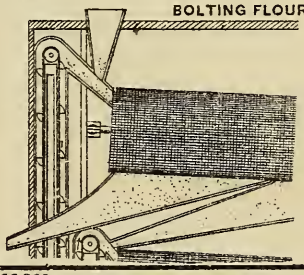
116,258 JOHN BEAN. CUTTING SEGMENT-PATTERNS.



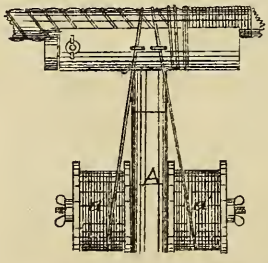
116,259 BENJAMIN F. BEE, SECTIONAL BOILERS.



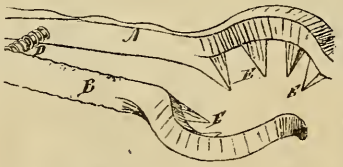
116,260 LEMUEL G. BINKLY, BOLTING FLOUR.



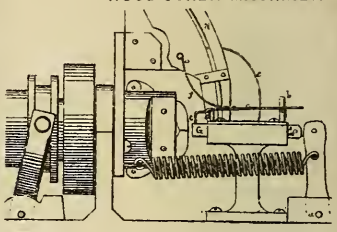
116,266 BOWDEN AND LEACH, WORMING AND SERVING RIGGING.



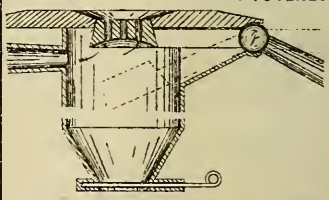
116,262 BRYHN AND FARRE, HAND CORN-SHELLERS.



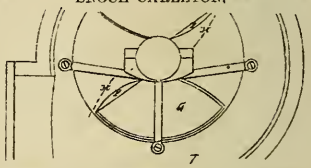
116,263 ANSEL BUCKMINSTER. WOOD-SCREW MACHINES.



116,264 JOHN CAPPON, TUYERES.

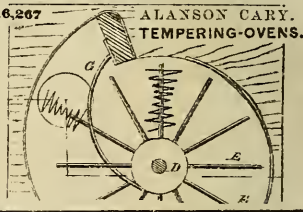


116,265 ENOCH CARLETON, BLOWERS.

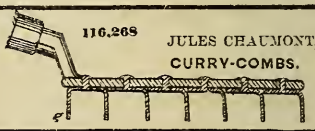


116,266 ALANSON CARY, MODES OF TEMPERING SPRINGS.

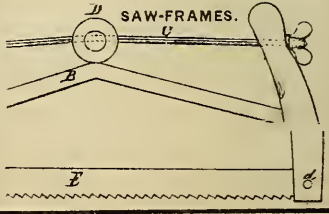
116,267 ALANSON CARY. TEMPERING-OVENS.



116,268 JULES CHAUMONT, CURRY-COMBS.

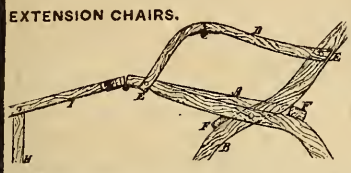


116,269 WILLIAM CLEMSON, SAW-FRAMES.

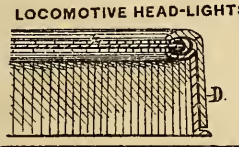


116,270 DANIEL S. COE, BOLT-MACHINES.

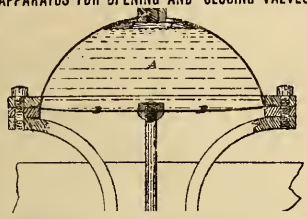
116,271
COLLIGNON, COLLIGNON, AND COLLIGNON,
EXTENSION CHAIRS.



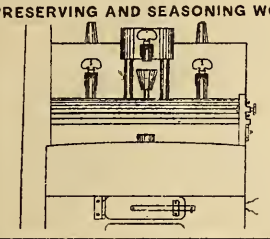
116,272 COLLINS AND HARDY.
LOCOMOTIVE HEAD-LIGHTS.



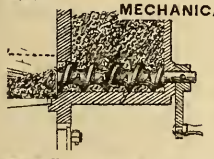
116,273 ANDREW AINSLIE COMMON,
APPARATUS FOR OPENING AND CLOSING VALVES



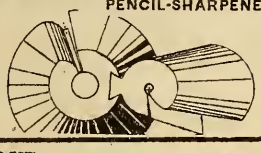
116,274 SILAS CONSTANT,
PRESERVING AND SEASONING WOOD.



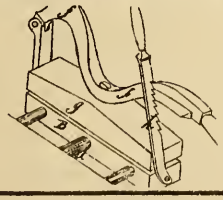
116,275 SAMUEL DANKS,
MECHANICAL FIRING.



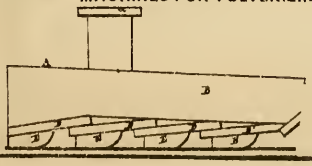
116,276 SAMUEL DARLING,
PENCIL-SHARPENERS.



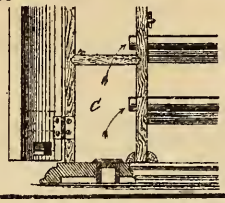
116,277 JACOB W. DAVIS.
IRONING AND STRETCHING-BOARDS.



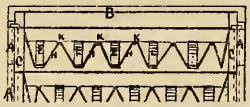
116,278 GEORGE P. DE YO,
MACHINES FOR PULVERIZING



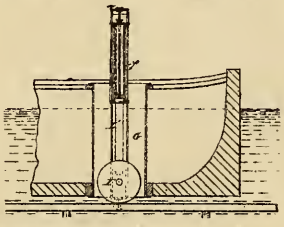
116,279 ERNEST DREVET. DRIERS.



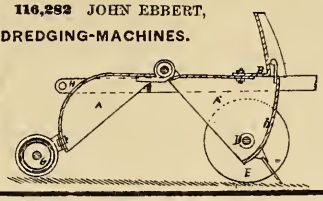
116,280 WATSON DUCHEMIN,
EGG-CARRIERS.



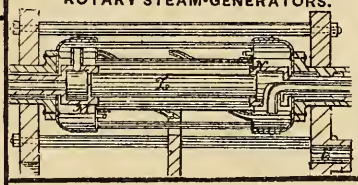
116,281 WILLIAM T. DUVALL,
PROPULSION OF CANAL-BOATS.



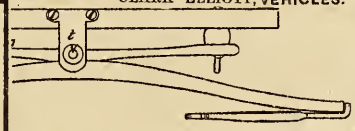
116,282 JOHN EBBERT,
DREDGING-MACHINES.



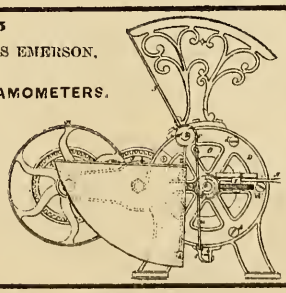
116,283 NATHANIEL T. EDSON,
ROTARY STEAM-GENERATORS.

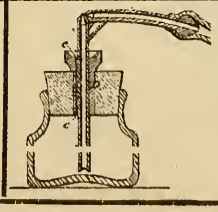


116,284 CLARK ELLIOTT, VEHICLES.



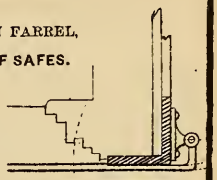
116,285
JAMES EMERSON.
DYNAMOMETERS.



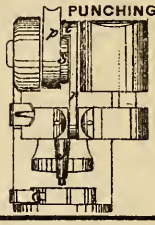


116,286
JAMES J. ESSEX,
ATOMIZERS.

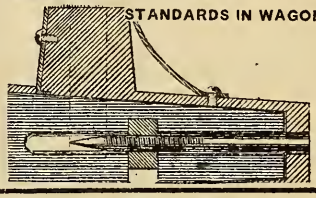
116,287
JOHN FARREL,
BURGLAR-PROOF SAFES.



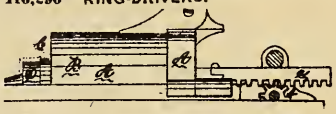
116,288 DANIEL ANDERSON FAULKNER,
PUNCHING-MACHINES.



116,289 WILLIAM D. FINK,
STANDARDS IN WAGONS.

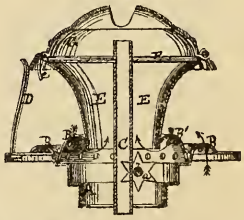


116,290 ALEXANDER FISHER,
RING-DRIVERS.

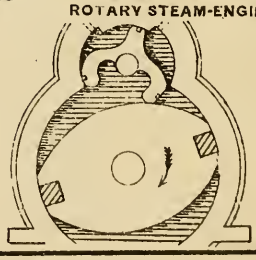


116,291 PAUL FISHER,
FLESH-FORKS.

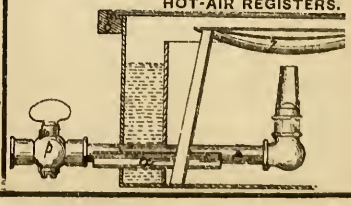
116,292 SAMUEL W. FOWLER,
LAMP-BURNERS.

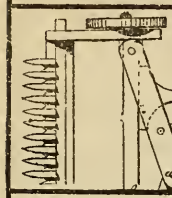


116,293 SAMUEL B. FREEMAN,
ROTARY STEAM-ENGINES.



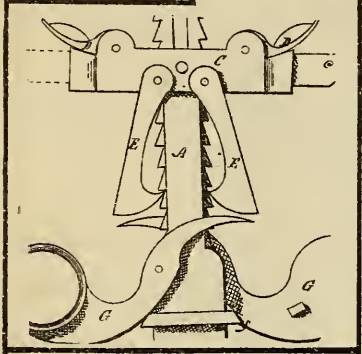
116,294 D'ALEMBERT T. GALE.
HOT-AIR REGISTERS.



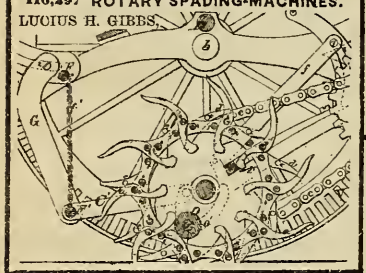


116,295
EMERY R. GARD,
LAWN-MOWERS.

116,296
EMERY R. GARD,
LIFTING-JACKS.



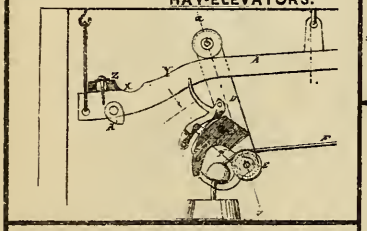
116,297 ROTARY SPADING-MACHINES.
LUCIUS H. GIBBS.



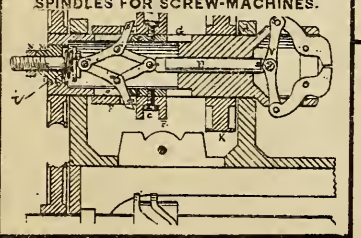
116,298 JAMES W. GILLIES,
PROCESSES OF ROASTING COFFEE.

116,299 JAMES W. GILLIES,
IMPROVEMENT IN PROCESSES OF
TREATING COFFEE.

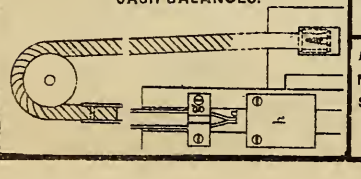
110,300 CHARLES E. GLADDING,
HAY-ELEVATORS.



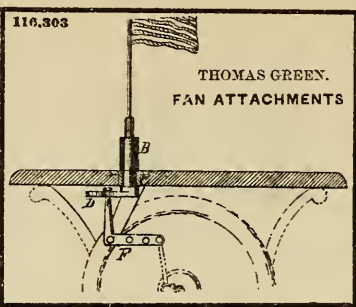
116,301
DEARBORN P. GLINES,
SPINDLES FOR SCREW-MACHINES.



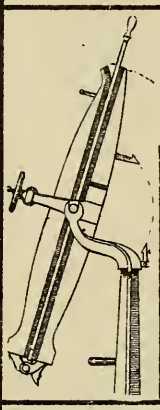
116,302
LEWIS GOODWIN,
SASH-BALANCES.



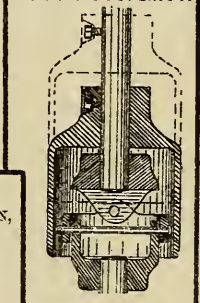
116,303
THOMAS GREEN.
FAN ATTACHMENTS



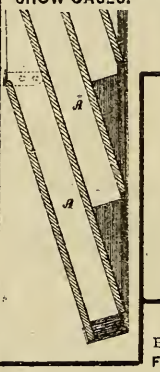
116,304
LOUIS GUEX,
STEREOTYPE-MOLDS.



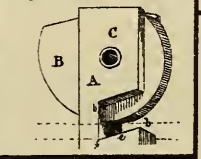
116,305
CHARLES S. HALL,
SHIELDS FOR
SHAFT-COUPLINGS.



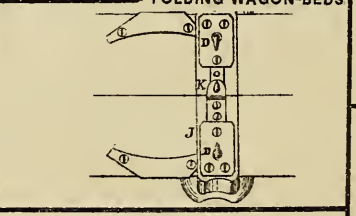
110,306
GEORGE A. HEARN,
SHOW-CASES.



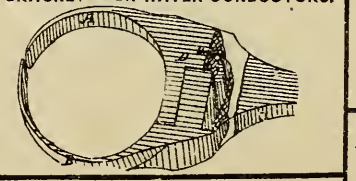
116,307
HEDGE AND FLEMING,
CLOTHES-CLAMPS.



116,308
HEFFLEY AND PETTIT
FOLDING WAGON-BEDS

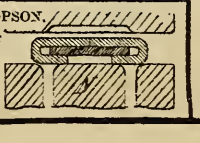


116,309 LEONARD B. HILL,
BRACKETS FOR WATER-CONDUCTORS.

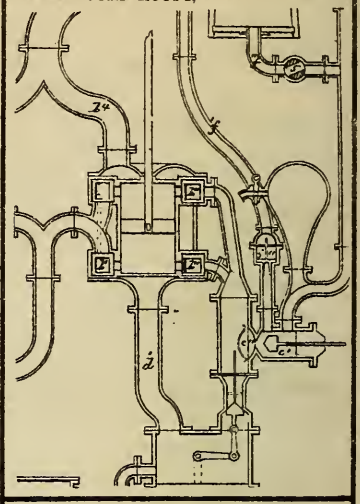


116,310 MORITZ HOLST,
MEDICAL COMPOUNDS OR BITTERS.

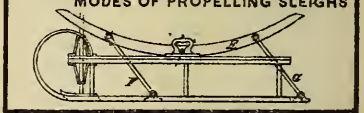
116,311 GEORGE HOPSON,
MANUFACTURE OF
SPRING-HEADS.



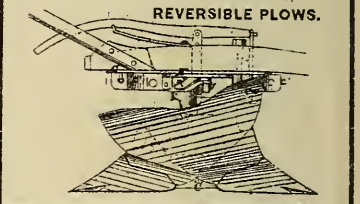
116,312 JOHN HOUPT, STEAM-ENGINES.



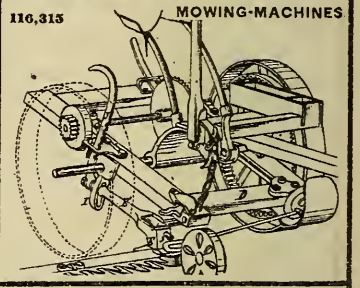
116,313 CHARLES H. HUDSON,
MODES OF PROPELLING SLEIGHS



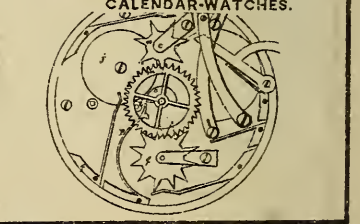
116,314 EDWIN JENNINGS,
REVERSIBLE PLOWS.



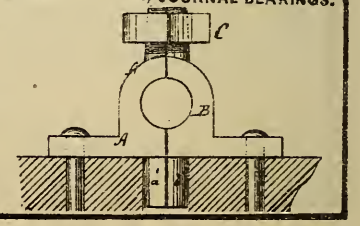
SAMUEL JOHNSTON.
116,315 MOWING-MACHINES



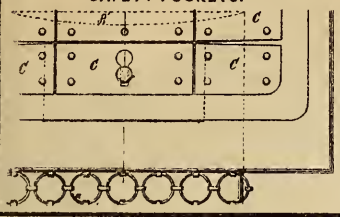
116,316 ALFRED COURVOISIER IONAIS.
CALENDAR-WATCHES.



116,317
ALFRED F. JONES, JOURNAL-BEARINGS.

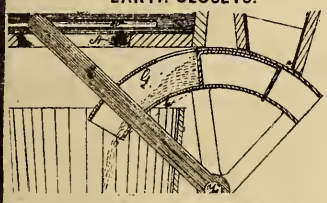


ELIAS JONES, 116,318
SAFETY-POCKETS.

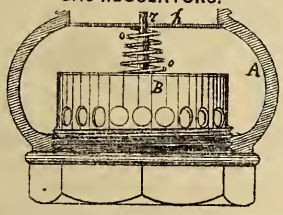


116,319 NATHANIEL JONES
RAILROAD-CAR VENTILATORS.

WILLIAM A. JORDAN,
116,320 EARTH-CLOSETS.

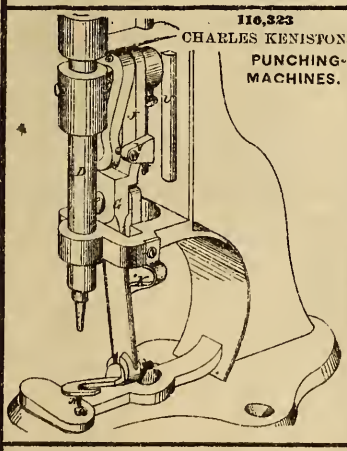


116,321 PETER KELLER,
GAS-REGULATORS.

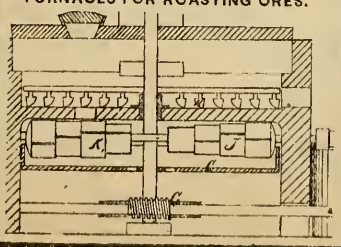


116,322 PETER J. KELLY,
IMPROVEMENT IN RUBBER COMPOUNDS FOR BEARINGS,

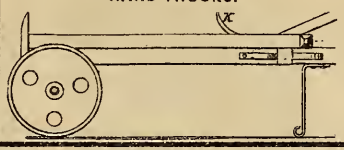
116,323
CHARLES KENISTON,
PUNCHING-MACHINES.



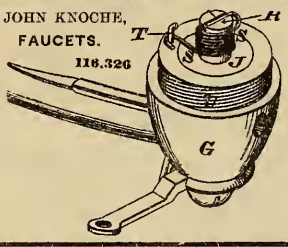
116,324 FRANK KESSELER,
FURNACES FOR ROASTING ORES.



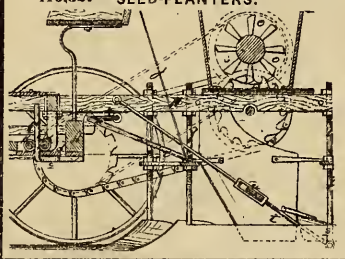
116,325 THOMAS F. KIFF,
HAND-TRUCKS.



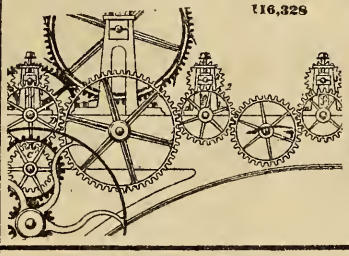
JOHN KNOCHE,
FAUCETS.
116,326



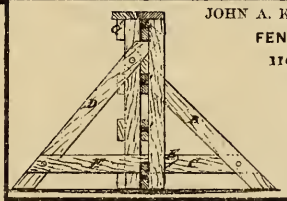
KNOWLAND AND COLLINGS,
116,327 SEED-PLANTERS.



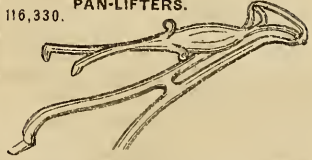
JACOB C. KURTZ, FLAX-BRAKES.
116,328



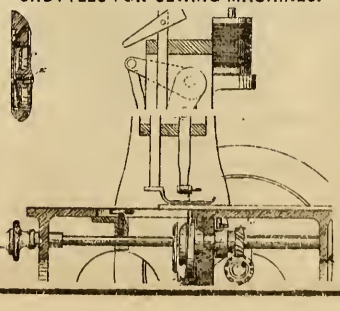
JOHN A. KYSOR.
FENCES.
116,329



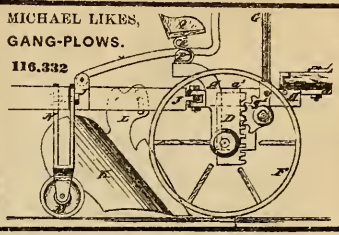
LAWRENCE AND COLLAMORE,
PAN-LIFTERS.
116,330.



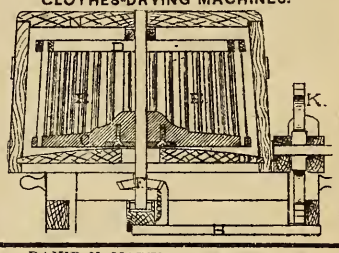
116,331 GEORGE H. LENHER,
SHUTTLES FOR SEWING-MACHINES.



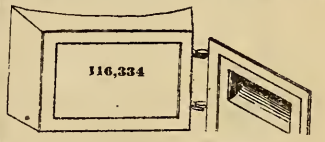
MICHAEL LIKES,
GANG-PLOWS.
116,332



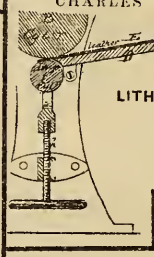
LUTHER AND STAAB, 116,333
CLOTHES-DRYING MACHINES.



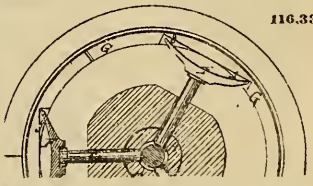
DAVID N. MARTIN, STOVE-DOORS



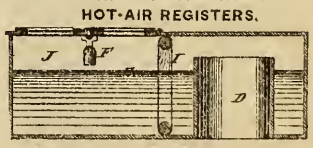
CHARLES C. MAURICE,
116,335
LITHOGRAPHIC PRESSES.



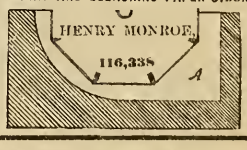
JAMES McALONAN
PISTON-PACKINGS.
116,336



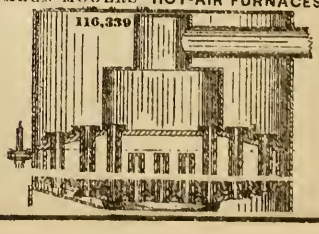
116,337 JOHN W. McGLASHAN,
HOT-AIR REGISTERS.



WASHING AND BLEACHING PAPER-STOCK.
HENRY MONROE,
116,338

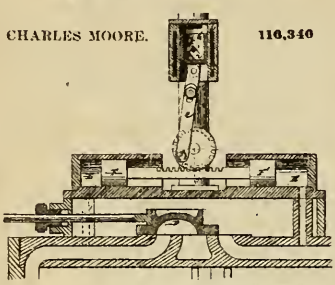


HAZEN MOORES HOT-AIR FURNACES
116,339

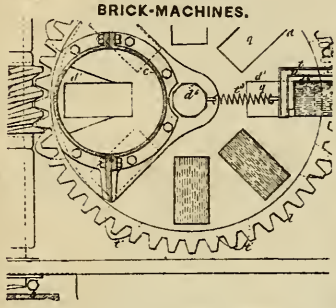


GOVERNORS AND CUT-OFF DEVICES

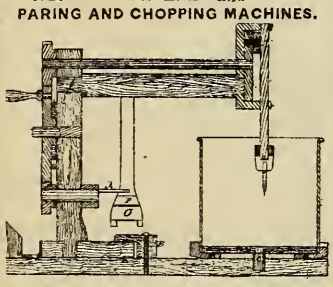
CHARLES MOORE. 116,340



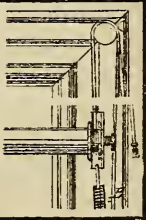
116,341 AUGUSTUS MORAND,
BRICK-MACHINES.



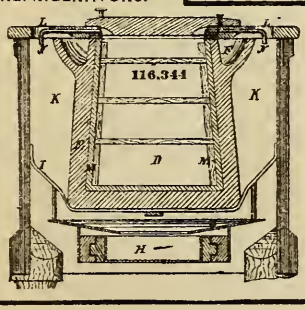
116,342 STEPHEN H. MORSE.
PARING AND CHOPPING MACHINES.



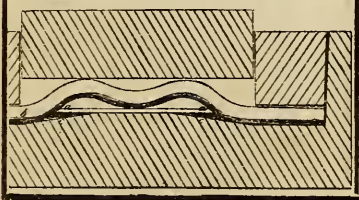
BENJAMIN MOSER,
CURTAIN-FIXTURES.
116,343



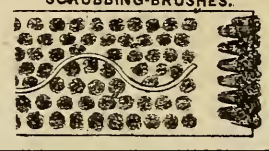
CHARLES E. MUNROE,
REFRIGERATORS.



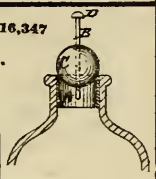
116,345 WILSON NOBLE,
DIES FOR MAKING CARRIAGE-CLIPS.



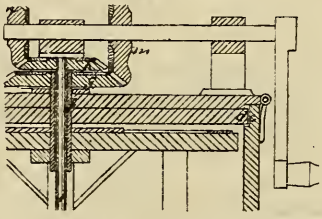
116,346 PATRICK O'BRIAN.
SCRUBBING-BRUSHES.



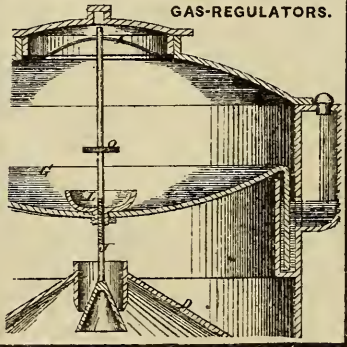
JOHN PARK, 116,347
BOTTLE-STOPPERS.



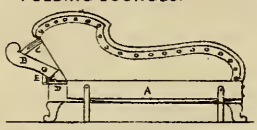
THOMAS BEE PARKE,
CHURNS. 116,348



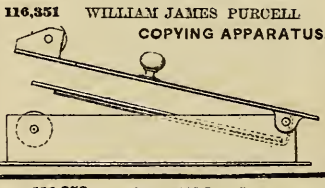
116,349 CHARLES C. PLACE,
GAS-REGULATORS.



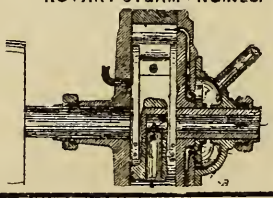
WILLIAM PRUFROCK 116,350
FOLDING-LOUNGES.



116,351 WILLIAM JAMES PURCELL.
COPYING APPARATUS.

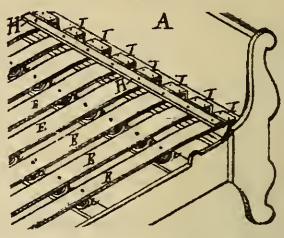


116,352 WASHBURN RACE,
ROTARY STEAM-ENGINES.

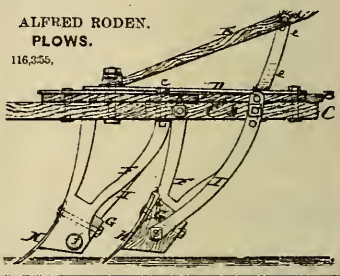


STEAM-ENGINE PISTON-HEADS.
116,353

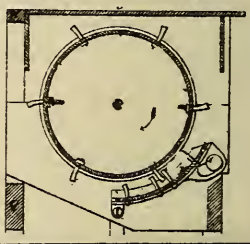
116,354 GEORGE W. ROBINSON,
BED-BOTTOMS.



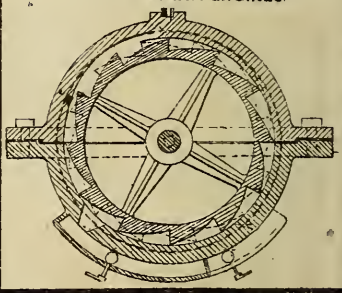
ALFRED RODEN.
PLOWS.
116,355.



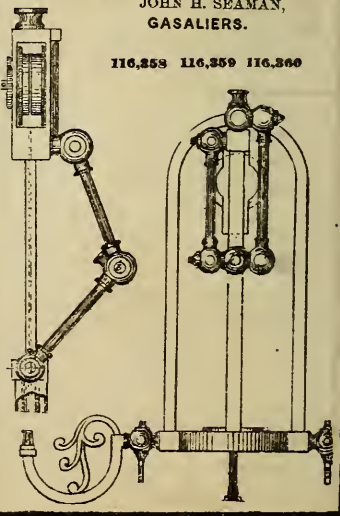
116,356 CHARLES E. ROPER,
THRASHING-MACHINES.



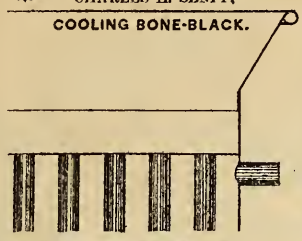
CHARLES F. ROTH. 116,357
ROTARY STEAM-ENGINES.



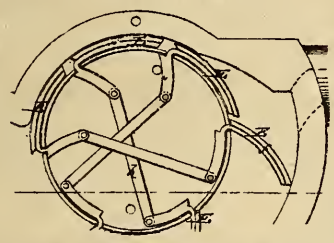
JOHN H. SEAMAN,
GASALIERS.
116,358 116,359 116,360



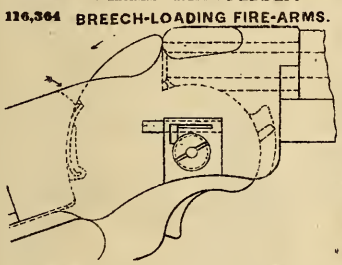
116,361 CHARLES H. SENFF,
COOLING BONE-BLACK.



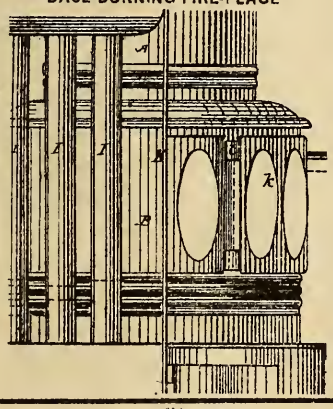
116,362 JOEL C. SLAUGHTER,
WATER-METERS.



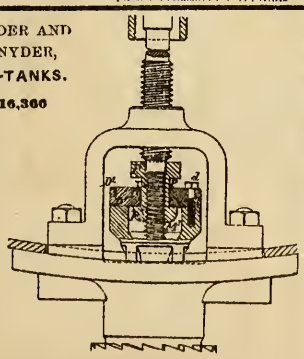
116,363 WILLIAM TAIT SNEDDEN.
116,364 BREECH-LOADING FIRE-ARMS.



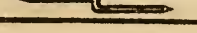
116,365 GEORGE B. SNIDER,
BASE-BURNING FIRE-PLACE



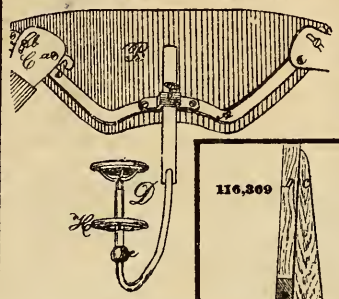
SNYDER AND SNYDER,
OIL-TANKS.
116,366



116,367 JOHN SOWLE,
POINTED DOWEL-BRADS.



116,368 HENRY SPILLMANN
SUPPORTERS AND PESSARIES.



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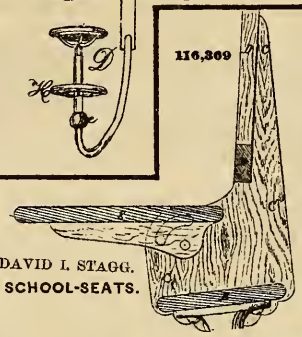
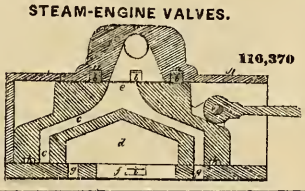
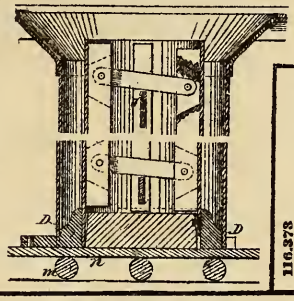


DAVID I. STAGG.
SCHOOL-SEATS.

NATHAN P. STEVENS,
STEAM-ENGINE VALVES.
116,370

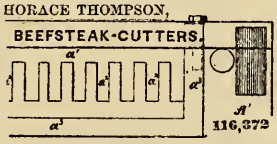


JOHN W. STOCKWELL, 116,371
DRAIN-PIPE MACHINES.



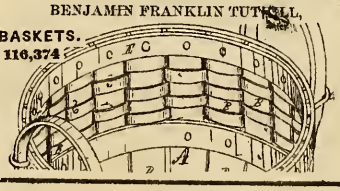
116,373 JUDSON L. THOMSON
WATER-PROOF BOXES.

HORACE THOMPSON,
BEEFSTEAK-CUTTERS.



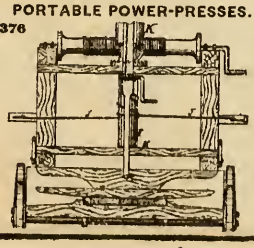
116,372

BENJAMIN FRANKLIN TUTTLE,
BASKETS.
116,374

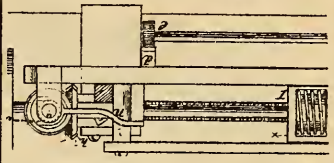


116,375 PHILOMELA T. VINING,
IN PRESERVING NATURAL FLOWERS.

THOMAS B. WAIT,
PORTABLE POWER-PRESSES.
116,376

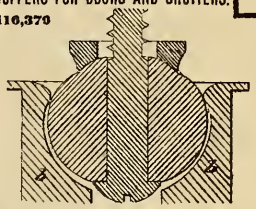


116,377 ELBRIDGE WEBBER,
SAPPING LOGS FOR CLAPBOARDS

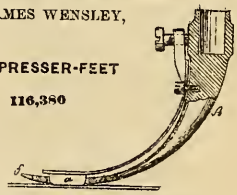


ALBERT W. WEBSTER,
BUTTON-HOLE GUIDE-PLATES.
116,378

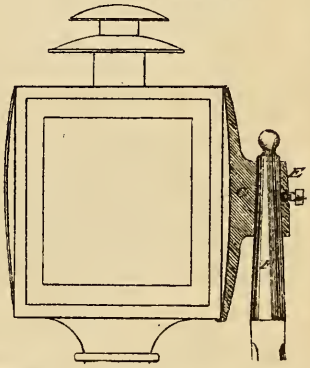
WELLINGTON C. WENDELL,
BUFFERS FOR DOORS AND SHUTTERS.
116,379



JAMES WENSLEY,
PRESSER-FEET
116,380

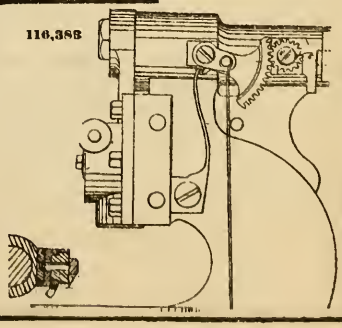


116,381 THOMAS P. WHITE,
CARRIAGE-LAMP SUPPORTS.

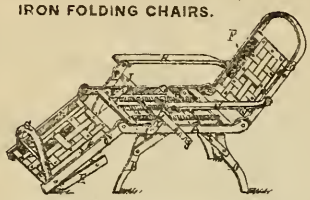


JOHN LAKE WHITING.
BRUSHES.
116,382

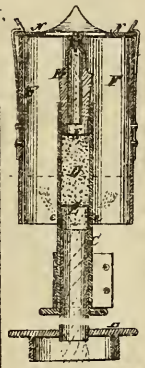
MOSES G. WILDER,
POWER-PRESSES.
116,383



116,384 GEORGE WILSON,
IRON FOLDING CHAIRS.



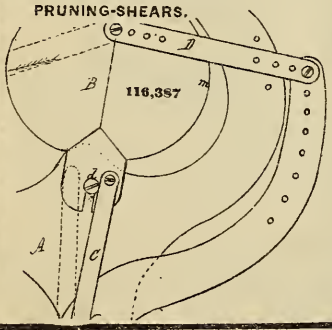
GEORGE H. WILSON,
VAPOR-BURNERS.
116,385



116,386

STEPHEN WOODWARD
NEEDLES FOR KNITTING-MACHINES.

EDWIN L. YANCEY,
PRUNING-SHEARS.



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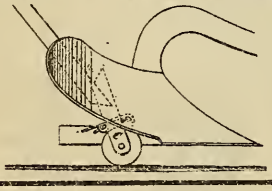
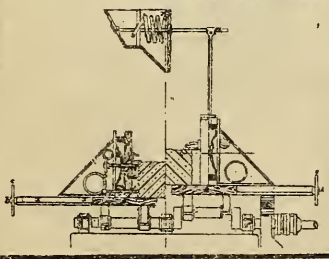
116,389 JOHN H. ZUMSTEIN,
MEAT AND VEGETABLE SAUSAGES.

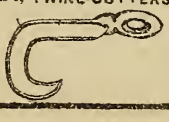
116,388 CHARLES M. YOUNG,
ROLLER ATTACHMENTS FOR PLOWS.



116,390 WILLIAM ADAMS,
MACHINES FOR DRESSING STONES.

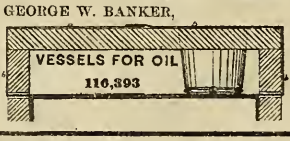


JOHN ADT, TWINE-CUTTERS. 116,391



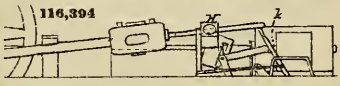
JOHAN FRITHJOF AKERSTEIN.
FURNITURE-TIPS.
116,392

GEORGE W. BANKER,

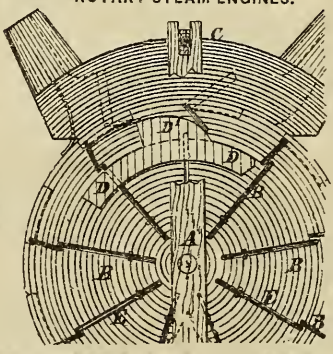


VESSELS FOR OIL
116,393

JAMES BANKS, STEAM-ENGINES.
116,394

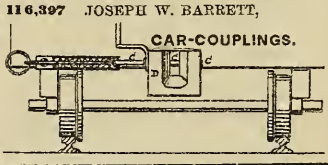


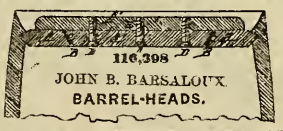
116,395 JOHN BARNETT,
ROTARY STEAM-ENGINES.



116,396 MATTHEW R. BARR,
STOVE-GRATES.

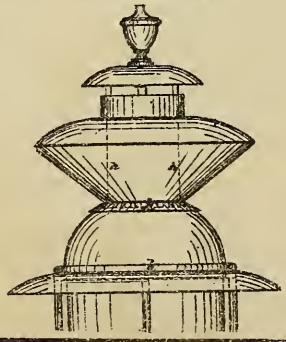
116,397 JOSEPH W. BARRETT,
CAR-COUPLINGS.



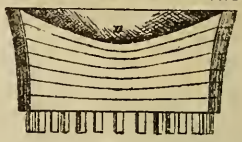


116,398
JOHN B. BARSALOUX.
BARREL-HEADS.

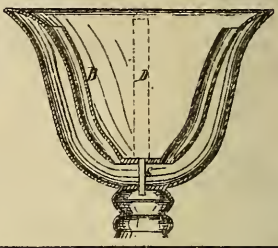
116,399 JOSEPH W. BARTLETT,
STREET-LANTERNS.



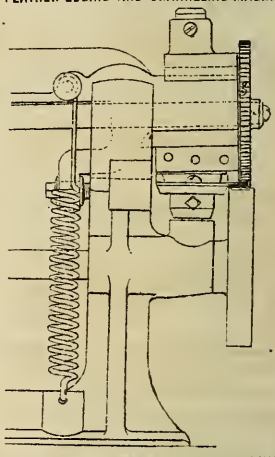
116,400 HORACE H. BIGELOW.
HEELS FOR BOOTS AND SHOES.



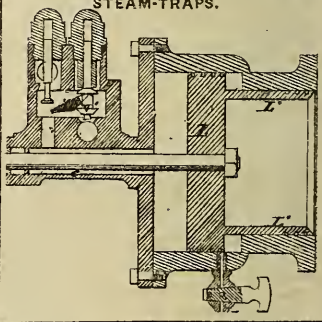
116,401 BINGHAM AND BEMIS.
SELF-WATERING VASES.



LYMAN R. BLAKE, 116,402
FEATHER-EDGING AND CHANNELING MACHINES

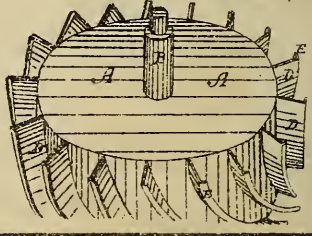


JAMES H. BLESSING, 116,403
STEAM-TRAPS.

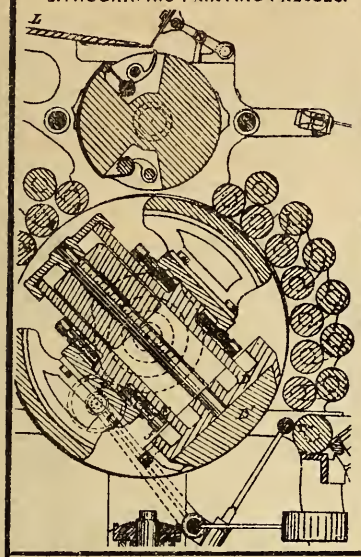


116,404 JOHN C. BOHN, SPURS.

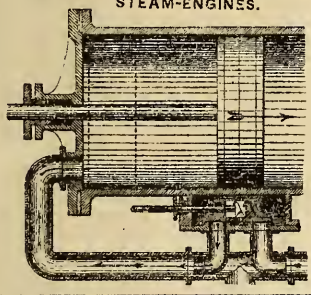
BOYLAND AND BUCHANAN. 116,405
TURBINE WATER-WHEELS.



116,406 EDWARD S. BOYNTON,
LITHOGRAPHIC-PRINTING PRESSES.

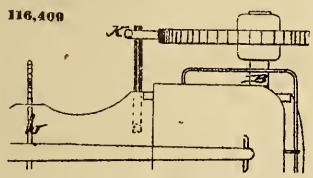


116,407 HENRY W. ADAMS,
STEAM-ENGINES.

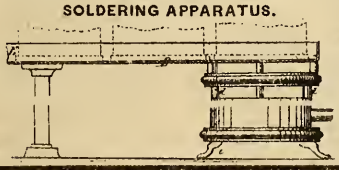


116,408 BASHLEY BRITTEN, ORDNANCE.

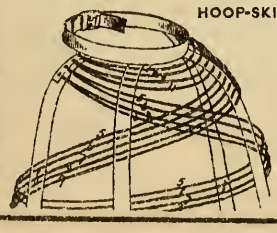
ADNA BROWN, COASTING-WAGONS.
116,409



116,410 ANDREW J. BURKE,
SOLDERING APPARATUS.

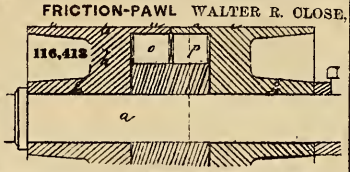


116,411 CHARLES C. CARPENTER,
HOOP-SKIRTS.

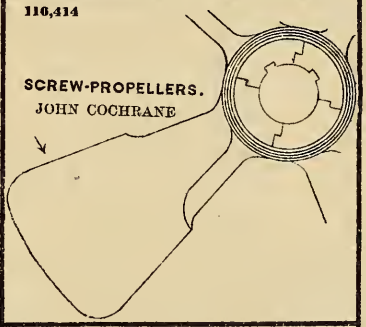


116,412 MATTHEW CHAPMAN,
TABLE-KNIVES AND FORKS.

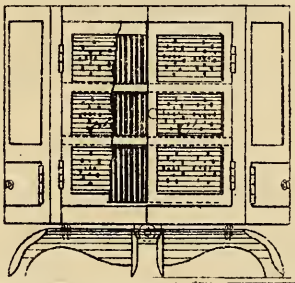
FRICTION-PAWL WALTER R. CLOSE,
116,413



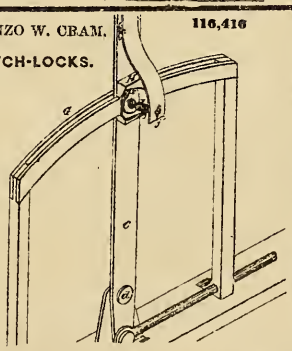
116,414
SCREW-PROPELLERS.
JOHN COCHRANE



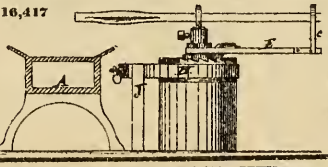
THOMAS COLTRANE, KITCHEN-SAFES.
116,415



ALONZO W. CRAM,
SWITCH-LOCKS.
116,416



WILLIAM B. CURTIS, ROWING-MACHINES.
116,417



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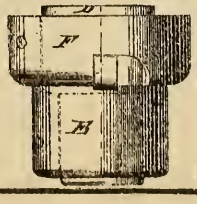
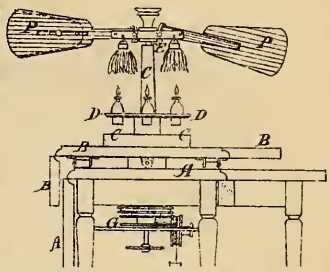
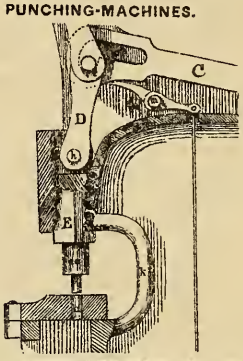
JOHN K. DERBY,
REAMERS.



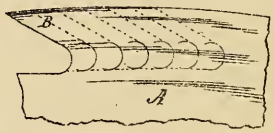
116,419 DRANE AND DRANE,
DINING-TABLES.



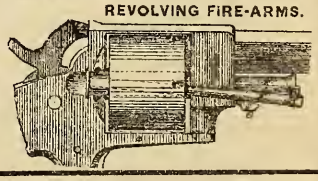
116,420 JAMES DUFF,
PUNCHING-MACHINES.



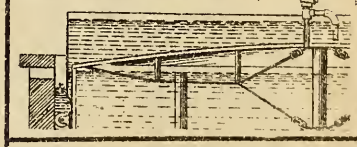
116,421 JAMES E. EMERSON, SAWS.



116,422 FOREHAND AND WADSWORTH,
REVOLVING FIRE-ARMS.

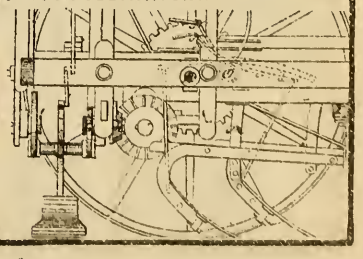


116,423 THEOBALD FORSTALL,
STORING AND DISCHARGING NAPHTHA, &C.



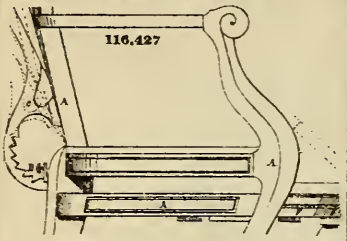
116,424 FRED. H. FURNISS,
THREAD-CUTTING DEVICES

116,425
WILLIAM C. GAINES,
COTTON CULTIVATORS.

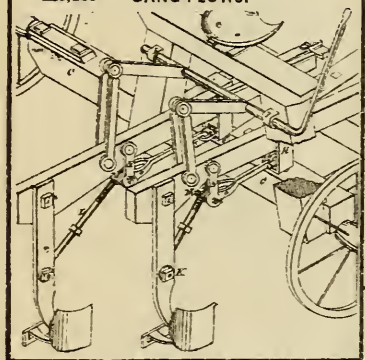


116,426 ROBERT GASS.
COOKING-STOVES.

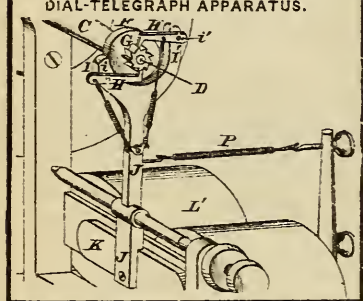
AUGUST GEBHARD AND JOHN BLODAN.
DENTISTS' AND BARBERS' CHAIRS.
116,427



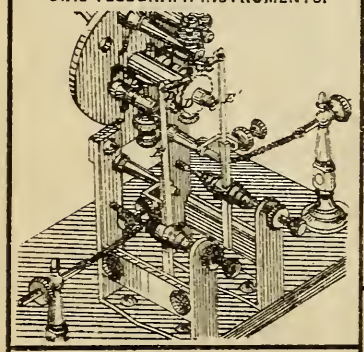
GILLHAM, TAYLOR, AND STOLLE.
116,428 GANG-PLOWS.



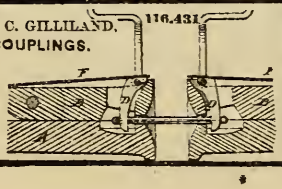
116,429 EZRA T. GILLILAND,
DIAL-TELEGRAPH APPARATUS.



116,430 EZRA T. GILLILAND,
DIAL-TELEGRAPH INSTRUMENTS.



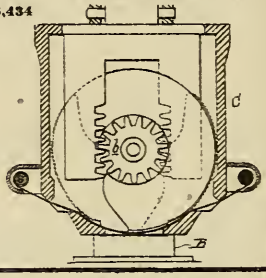
HENRY C. GILLILAND. 116,431
CAR-COUPLINGS.



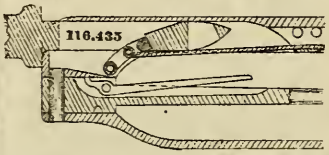
RUSSELL S. GLADWIN,
116,432 SCISSORS.

CLAUDE GLOVER,
BOTTLE-STOPPERS.
116,433

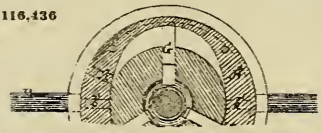
JOHN GOLDSBOROUGH,
STAMP-CANCELERS.
116,434



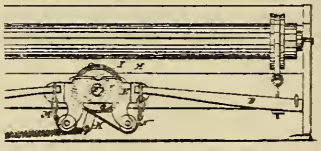
EDMUND H. GRAHAM, LOOM-SHUTTLES.
116,435



WILLIAM A. GRAHAM, ROTARY ENGINES.
116,436

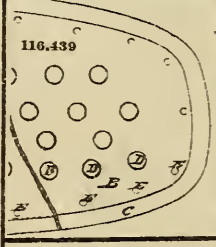


116,437 FREDERICK WILLIAM GRAICHEN,
LET-OFF MOTIONS OF LOOMS.

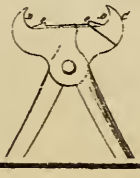


GREENAWAY AND NEEDHAM,
FIRE-PLACE GRATES. 116,438

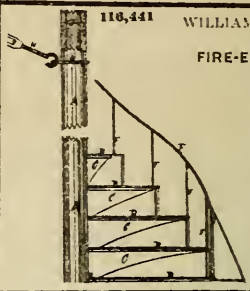
JOHN C. HANCOCK.
BOOT AND SHOE TAPS.
116,439



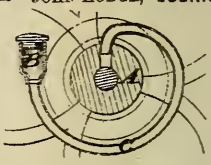
HERSEN, HEESEN, AND NYLAND.
INSTRUMENTS FOR RINGING HOGS.
116,440



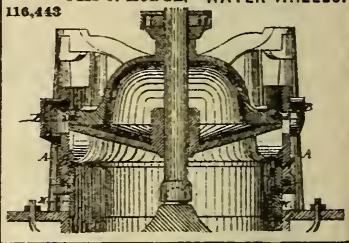
116,441 WILLIAM HENLEY,
FIRE-ESCAPES.



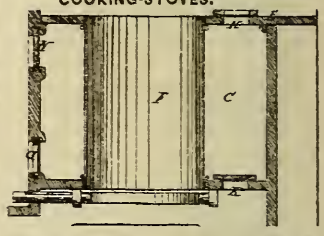
116,442 JOHN HODGE, LUBRICATORS.



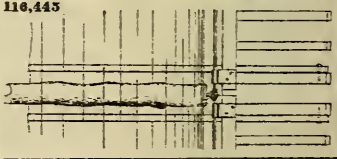
OTIS J. HODGE, WATER-WHEELS.
116,443



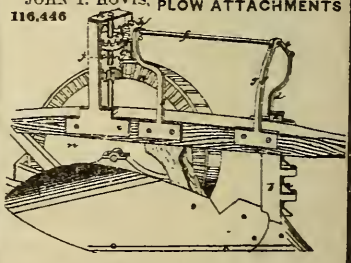
HOLMES AND PRIEST, 116,444
COOKING-STOVES.



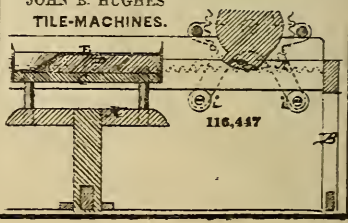
WILLIAM C. HOPWOOD, WATER-GATES.
116,445



JOHN T. HOVIS, PLOW ATTACHMENTS
116,446

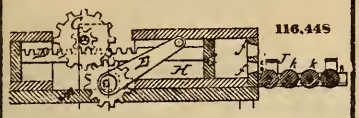


JOHN B. HUGHES
TILE-MACHINES.
116,447

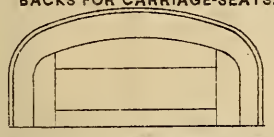


JOHN B. HUGHES, TILE-MACHINES.

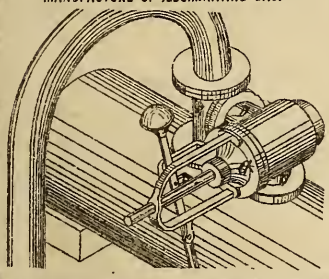
116,448



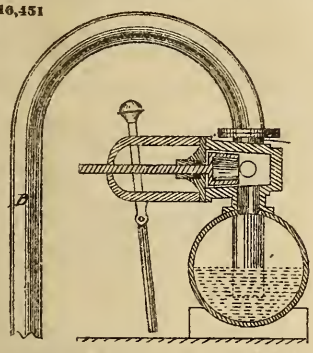
116,449 BENJAMIN HURLBURT,
BACKS FOR CARRIAGE-SEATS.



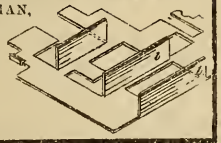
116,450 EDWARD JONES,
MANUFACTURE OF ILLUMINATING GAS.



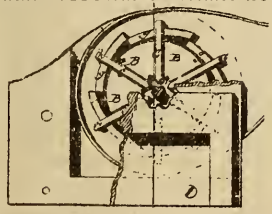
JEROME KIDDER, GALVANIC BATTERIES.
116,451



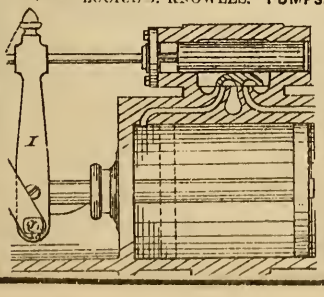
JOHN H. KINSMAN,
DOOR-LOCKS.
116,452



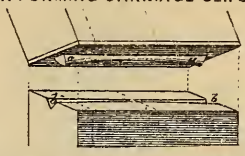
116,453 GEORGE S. KNAPP,
JOINING TUBULAR LIGHTNING-RODS.



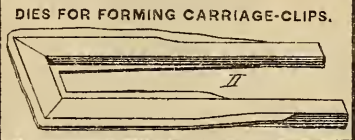
116,454 LUCIUS J. KNOWLES. PUMPS.



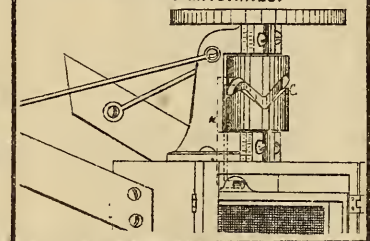
116,455 WILSON W. KNOWLES,
DIES FOR FORMING CARRIAGE-CLIPS.



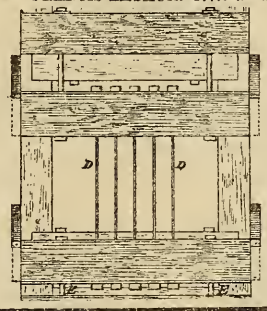
116,456 KNOWLES AND WHITE.
DIES FOR FORMING CARRIAGE-CLIPS.



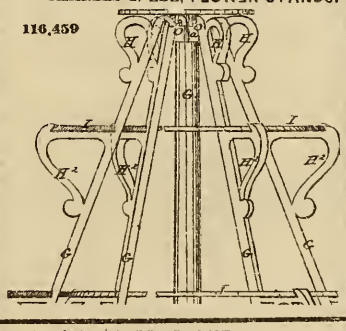
116,457 BENJAMIN M. LAMPMAN,
SIFTING-MACHINES.



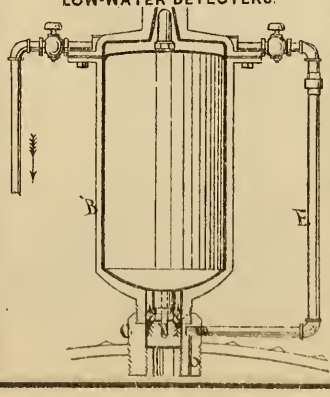
116,458 FRANCIS LAYAUX. SAW-MILLS.



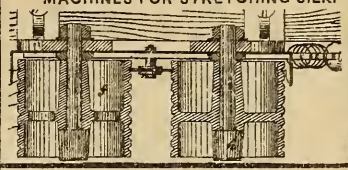
CHARLES T. LEE, FLOWER-STANDS.
116,459



116,460 LEWIS L. LEE,
LOW-WATER DETECTERS.



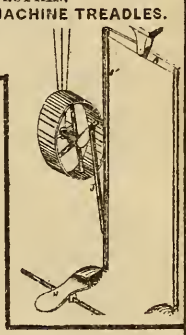
116,461 JOHN N. LEONARD,
MACHINES FOR STRETCHING SILK.



116,462 JOSEPH S. LETORD,
COMPOUNDS FOR DYEING HAIR.

116,463 WILLIAM LINTON FILTERS.

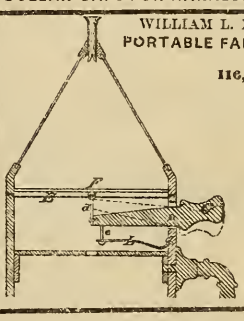
116,464 AMOS D. LUFKIN,
SEWING-MACHINE TREADLES.



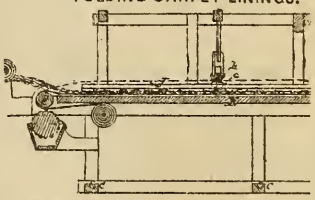
116,465

ARNOLD P. MASON,
COLLAR-CAPS FOR HARNESS

WILLIAM L. MAY,
PORTABLE FARE-BOXES.
116,466

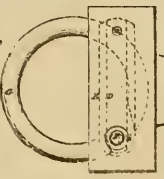


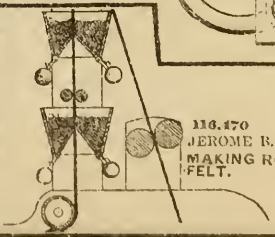
116,467 JOHN C. MAYALL.
FOLDING CARPET-LININGS.



116,468 SUSPENDED.

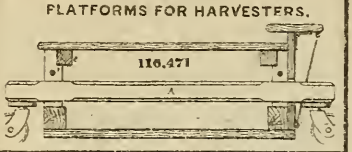
116,469
WILLIAM C. McGILL,
HASP-LOCKS.





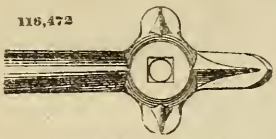
116,470
JEROME B. MELVIN
MAKING ROOFING-FELT.

CURTIS MILLER.
FLATFORMS FOR HARVESTERS.



ROBERT R. MILLER. BODY-LOOPS.

116,472

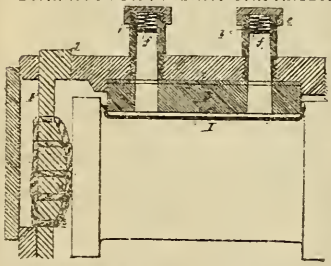


GEORGE W. MOORE, PLIERS.

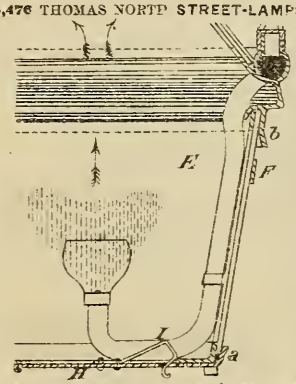
116,473

LOUIS L. MOORE AND R. B. S. WHAYRE.
116,474 COMPOSITIONS

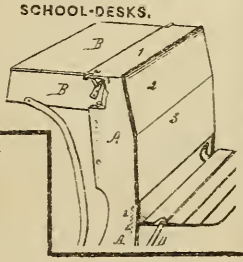
116,475 ELIZA DEXTER MURFEY.
BEARINGS FOR RAILWAY-CAR AXLES.



116,476 THOMAS NORTP STREET-LAMPS.



OSBORNE AND HAMMON.
116,477 SCHOOL-DESKS.



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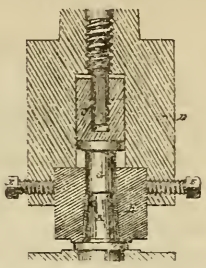
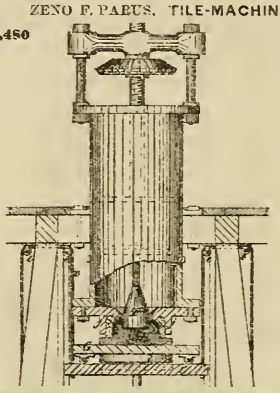
BOLT-CUTTERS.
ABNER W. OWEN AND MIOL E. LILLEY,

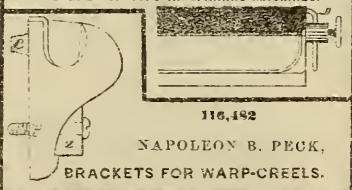
116,479 JOHN L. PARKER.
TAPERING FERRULES.



ZENO F. PARUS. TILE-MACHINES.
116,480

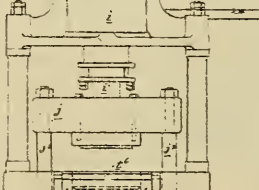


116,481 ALFRED PEARSON.
INITIAL COILS OF COPS IN SPINNING-MACHINES.



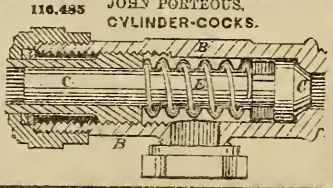
116,482
NAPOLEON B. PECK,
BRACKETS FOR WARP-CREELS.

116,483 ABRAHAM L. PENNOCK,
OPERATING VENTILATORS.

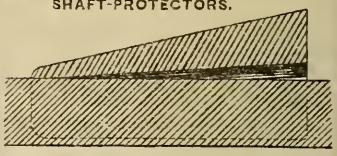


JULIUS FREDERICK MOORE POLLOCK.
116,484 BRICK-MACHINES.

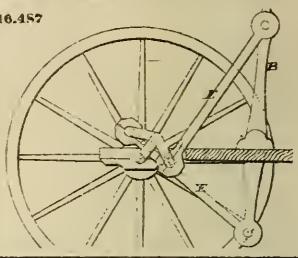
116,485 JOHN PORTEOUS.
CYLINDER-COCKS.



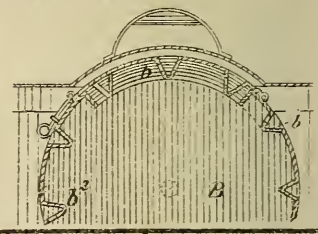
116,486 AHIRA S. PORTER,
SHAFT-PROTECTORS.



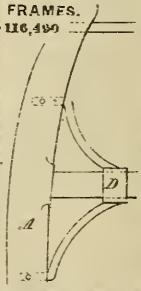
EDMUND QUINN, CRANK-MOTIONS.
116,487



HORACE LARDEN RICHARDSON,
116,488 WASHING-MACHINES.

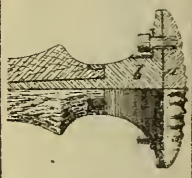


MADDEN AND ROBERTS.
BUCK-SAW FRAMES.
116,490

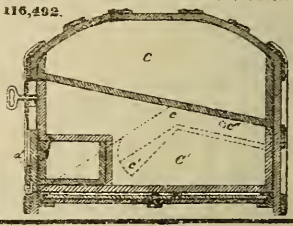


116,489
ERNST H. RICHTER.
COMPOSITION FUEL

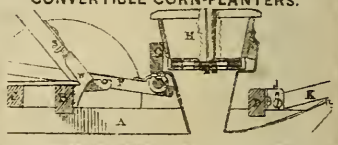
116,491
JOHN G. ROSS,
HAND-BURNISHERS



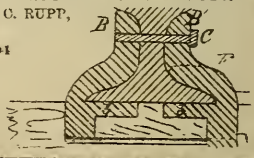
EDWARD A. G. ROULSTONE, TRUNKS.
116,492.



116,493 ANDREW RUNSTETLER,
CONVERTIBLE CORN-PLANTERS.

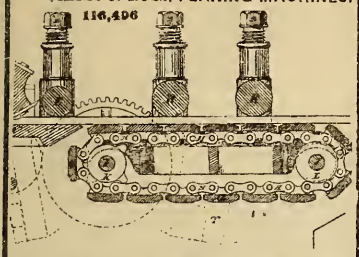


RAIL-JOINTS OR SPLICES.
JOHN C. RUPP,
116,494



JAMES J. RUSS. 116,495
KNIFE-SHARPENERS.

JAMES J. RUSS. PLANING-MACHINES.
116,496

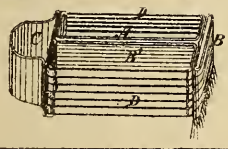


116,497 ALFRED RUZÉ,
MANUFACTURING CLOTH.

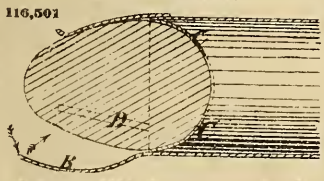
116,498 ALFRED RUZE, WOVEN CLOTH.

RYCROFT AND WHITE.
SHUTTLE-GUARDS FOR LOOMS.
116,499

AUGUST SAHLSTROM,
116,500 COMB-CLEANERS.



SAHLSTROM AND ROHDIN
EGG-DETECTERS.
116,501



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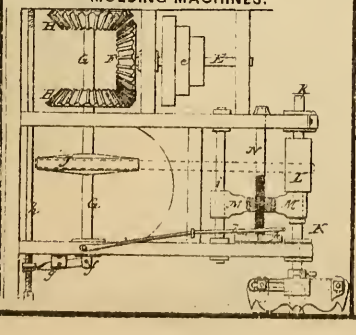
SARAH E. SAUL,
SEESAWS.

116,503 CONRAD SCHILLING,
MOLDING-MACHINES.



116,505 F. WILHELM SCHULTZ,
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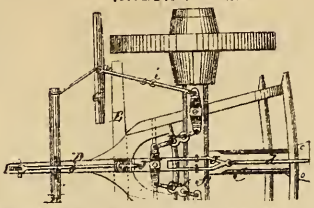
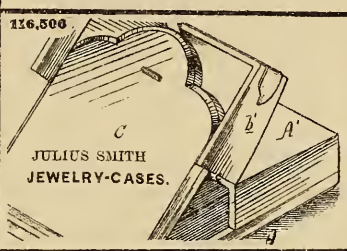


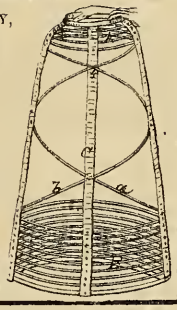
116,504 ADOLPH SCHREIBER,
TREATING SACCHARINE LIQUIDS.

116,506

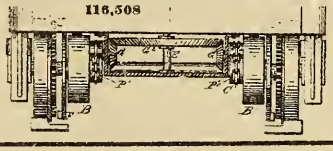


JULIUS SMITH
JEWELRY-CASES.

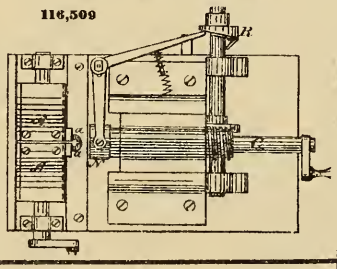
TIMOTHY S. SPERRY,
HOOP-SKIRTS.
116,507



JOSEPH F. STOKES,
CAR-STARTERS.
116,508

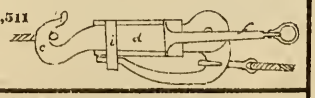


JAMES SWAN,
FORMING LIPS OF AUGER-BITS.
116,509

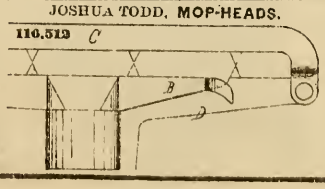


JOHN N. THOMSON, CRAVAT-HOLDERS.
116,510

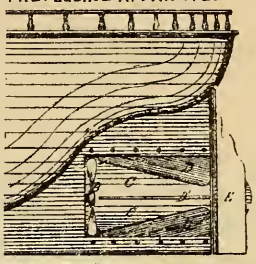
JOHN R. THORNE, CHAIN-HOOKS.
116,511



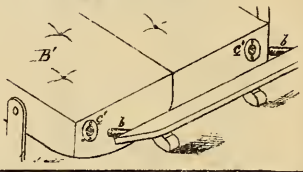
JOSHUA TODD, MOP-HEADS.
116,512



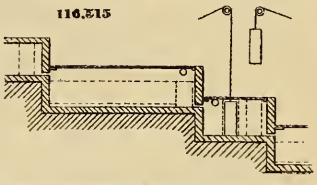
116,513 CHARLES E. TRIPLER.
PROPELLING APPARATUS



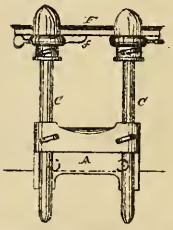
BENJAMIN FRANKLIN WALTON,
116,514 BED-LOUNGES.



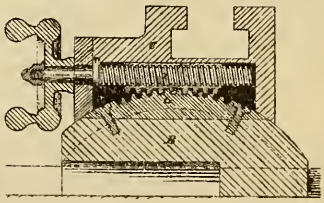
ROBERT WEARE, TREATING SEWAGE.
116,515



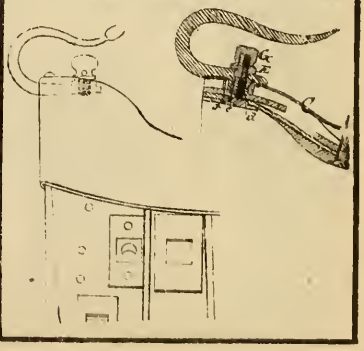
116,516 THOMAS N. WEBB,
TABLES FOR INVALIDS.



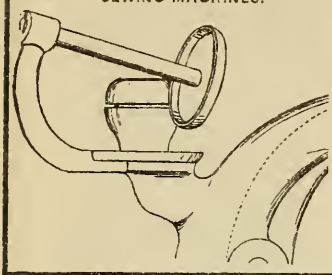
WHEELER, WHEELER, AND WHEELER.
116,517 TOOL-RESTS FOR LATHES.



PHILIP H. WIEDERSUM, 116,518
HARNESS SADDLE-TREES. 116,519

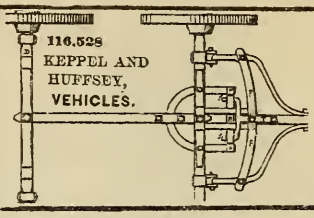


116,520 WILLCOX, AND CARLETON,
116,521 SEWING-MACHINES.



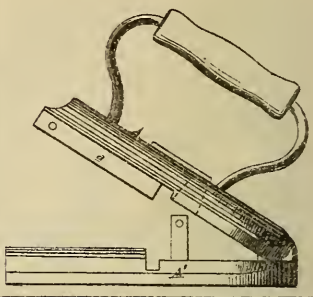
M. E. Hastings, 116,527. Hand Cor.

116,528 KEPPEL AND HUFFSEY, VEHICLES.

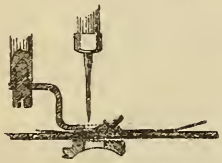


116,530 FRANCIS BAKER, MEDICAL COMPOUNDS

4,443 MYRON H. KNAPP, FLUTING AND SAD IRONS.



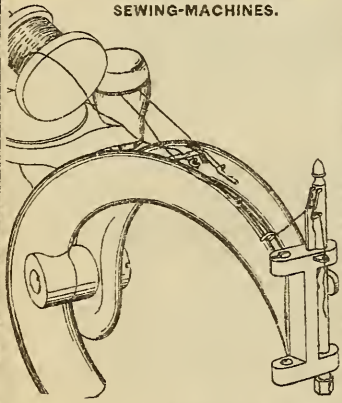
116,522 WILLCOX, AND CARLETON, SEWING-MACHINES.



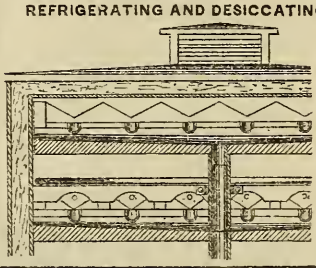
116,529 CHARLES RICH, BED-BOTTOMS.

4,444 HENRY LOEWENBERG, IMITATION BRAIDS, TRIMMINGS, LEATHERS.

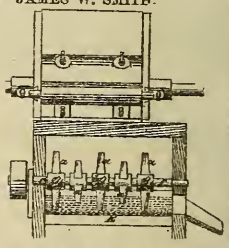
WILLCOX, AND CARLETON, 116,523 SEWING-MACHINES.



4,436 EDWIN D. BRAINARD, REFRIGERATING AND DESICCATING.



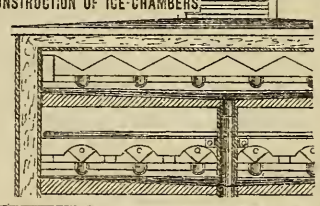
COTTON-SEED HULLERS.
4,446 JAMES W. SMITH.



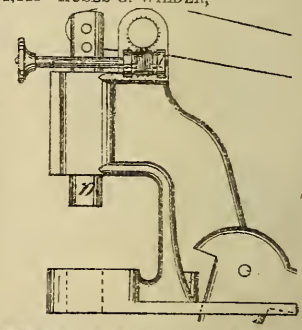
4,445 DANA SLADE, COMPOUNDS FOR TREATING CATARRH, &C., BY INHALATION.

4,447 WM. SMITH, HIRAM D. ROGERS, PRODUCING PRICES CURRENT, BULLETINS.

4,437 EDWIN D. BRAINARD, CONSTRUCTION OF ICE-CHAMBERS.



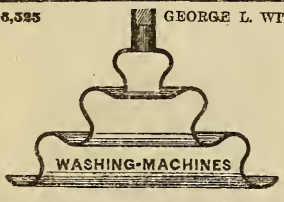
PUNCHING-PRESSES.
4,448 MOSES G. WILDER,



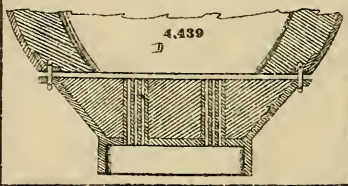
116,524 JAMES B. WILLIAMS. EVAPORATING-PANS.

C. A. BUTTLES, STOVE-PIPE THIMBLES. 4,438

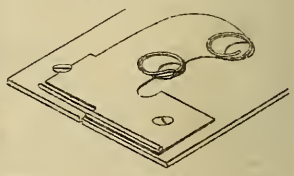
116,525 GEORGE L. WITSIL,



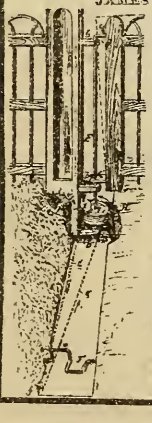
HENRY CHI LM, MANUFACTURE BESSEMER STEEL.

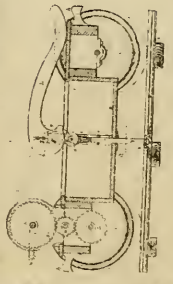


4,449 WILLCOX & GIBBS SEWING-MACHINES.



JAMES AGIN WOOD. GATES. 116,526





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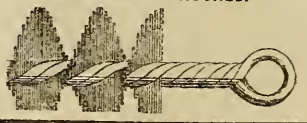
4,441 ELIAS INGRAHAM, EMBELLISHMENT OF GLASS.

4,442 ROBERT KING, BOILER-FLUE BRUSHES.



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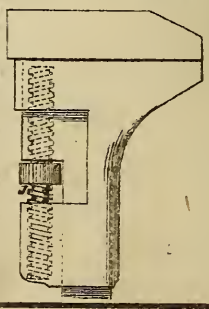

ILLUSTRATIONS OF PATENTS

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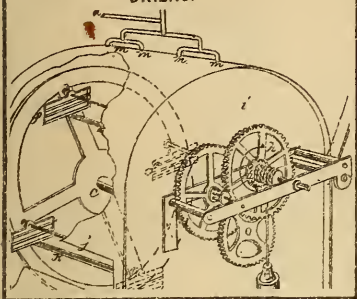
JULY 4, 1871.

116,531 ADAMS, AND BACON,
DRIERS.



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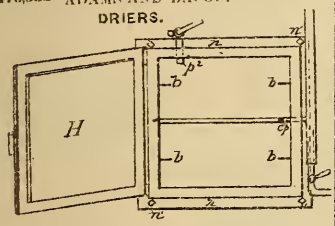
DRIERS.



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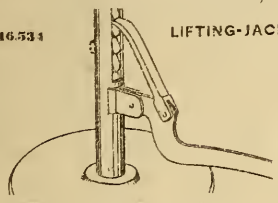

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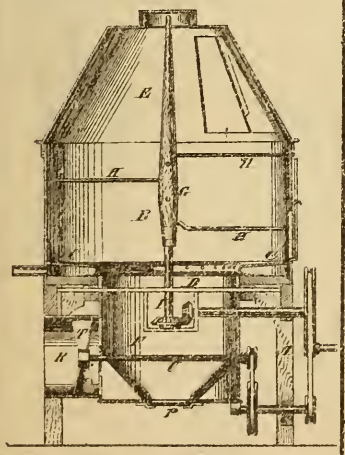

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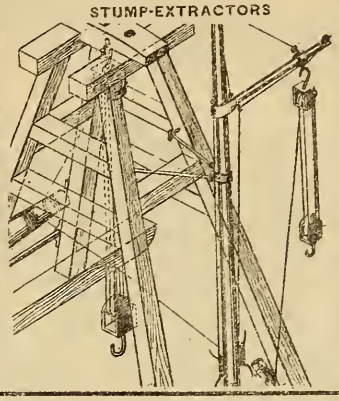
HARNESS-TRIMMINGS.

116,537 WILLIAM Q. BANTER,
STUMP-EXTRACTORS



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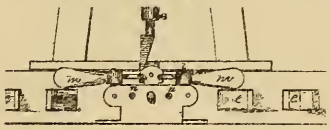
GAUGES FOR MORTISING-MACHINES.



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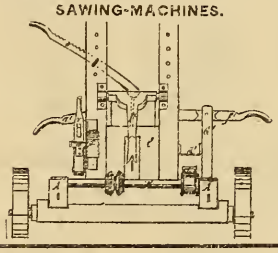

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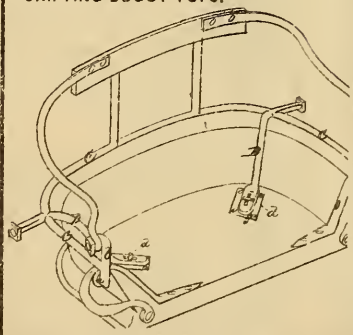

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DIES FOR MAKING WASHERS.

116,512 EDWARD S. BLAKE,
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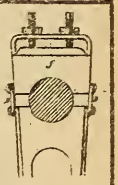

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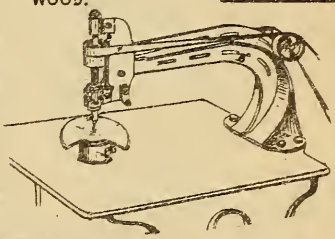

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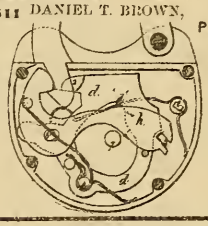

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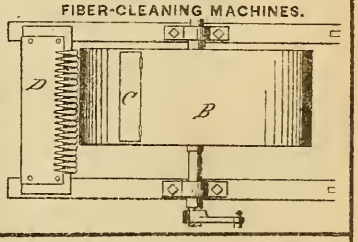
LATHE-TOOL SUPPORTERS.

116,546 JAMES BROWN.
FIBER-CLEANING MACHINES.



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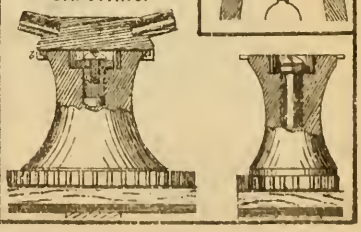
JOHN S. BROWN.
CAPSTANS.



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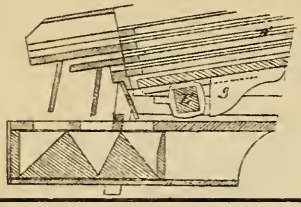

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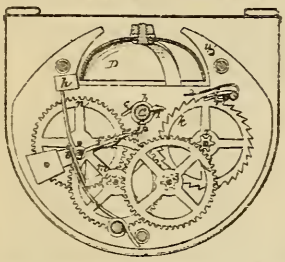
PORTABLE TALLYING-REGISTERS.



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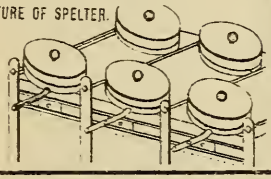

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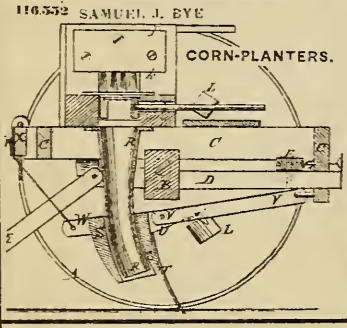

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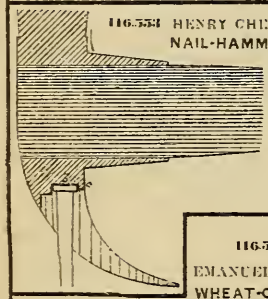

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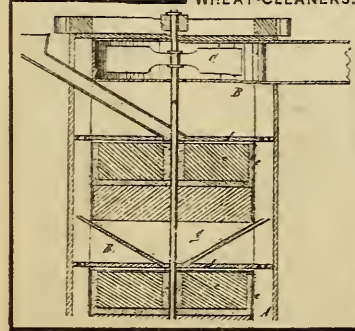
WHEAT-CLEANERS.



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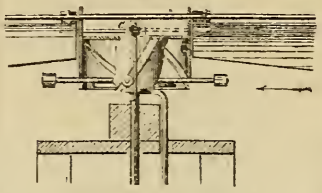

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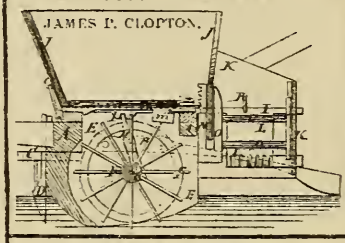
JAMES P. CLOPTON.



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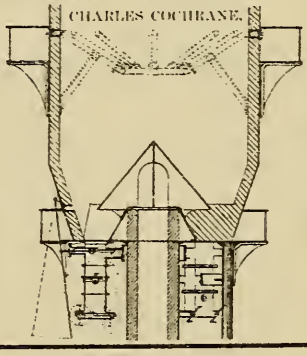
CHARLES COCHRANE.



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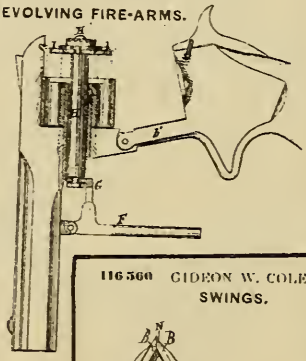

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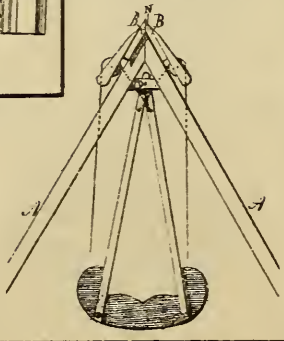

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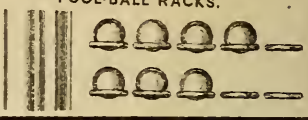

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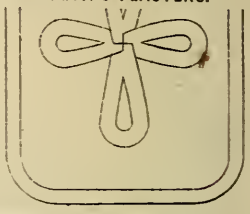

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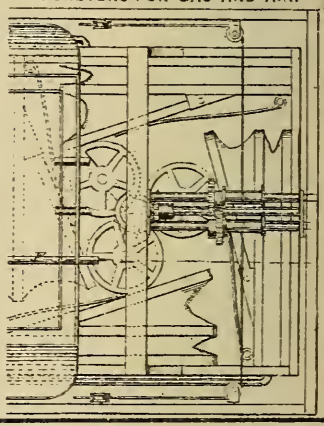

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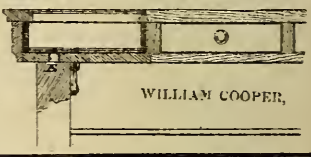

WILLIAM COOPER.

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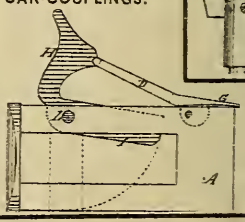
DANIEL CORGAN.
TAMPING APPARATUS.

116,566
GEORGE E. DARLING
AND MATHEW HEUS
CAR-COUPLINGS.



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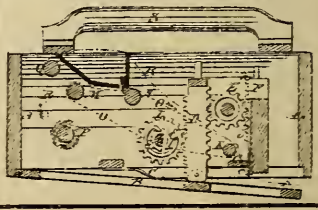

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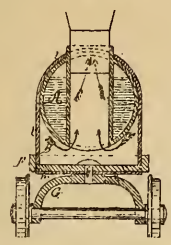

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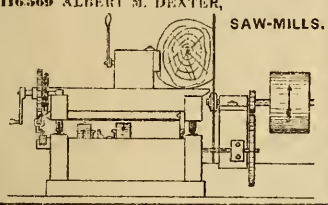

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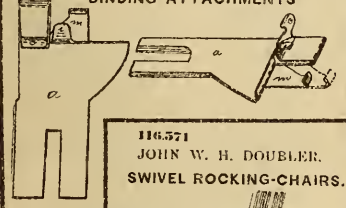
BINDING ATTACHMENTS



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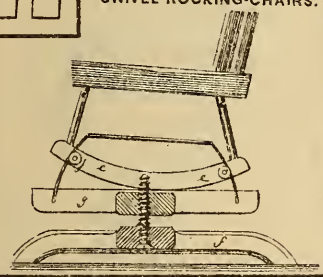

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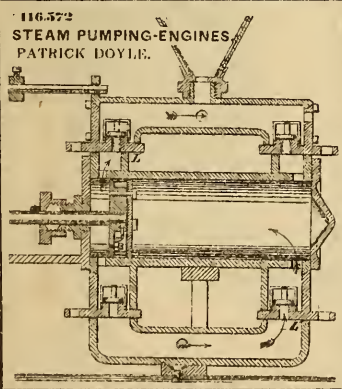
PATRICK DOYLE.



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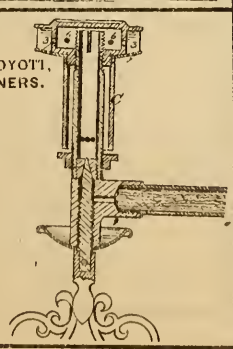
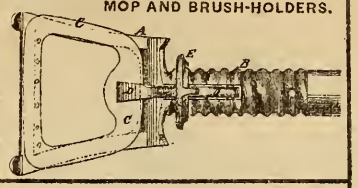
MICHAEL B. DYOTT,
VAPOR-BURNERS.



116,574 DAVID EDWARD,
MOP AND BRUSH-HOLDERS.



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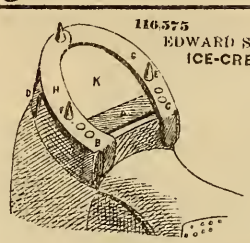

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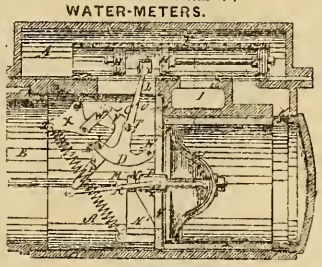

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MUSIC-LEAF HOLDERS.

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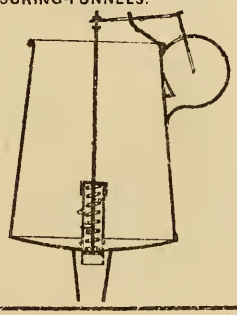

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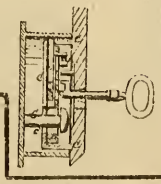
JACOB FISLER AND
GEORGE CROMPTON,



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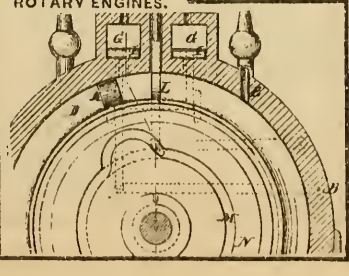
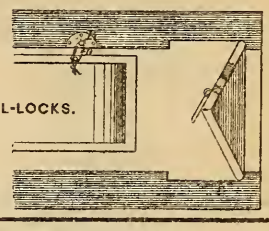
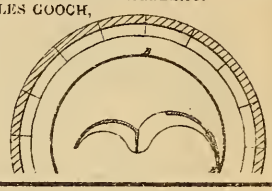
ROTARY ENGINES.



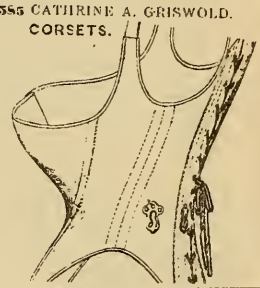
116,583 GENTRY AND BARCUS.
CANAL-LOCKS.



116,584 ICE-CREAM FREEZERS.
CHARLES GOOCH,



116,585 CATHRINE A. GRISWOLD.
CORSETS.



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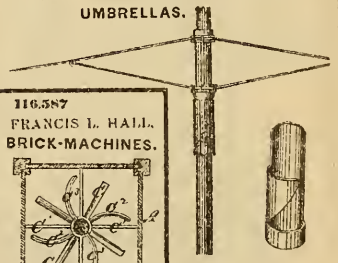
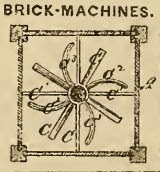
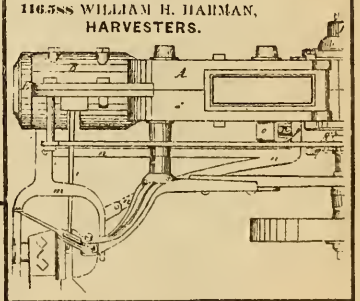
UMBRELLAS.



116,587
FRANCIS L. HALL.
BRICK-MACHINES.



116,588 WILLIAM H. HARMAN,
HARVESTERS.



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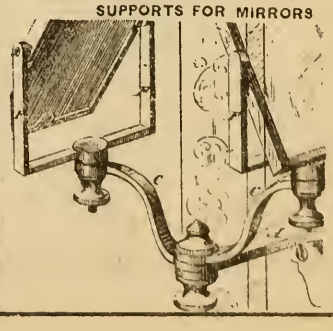
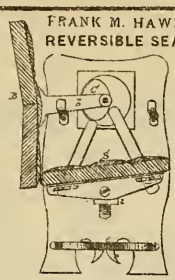
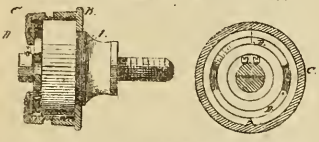
SUPPORTS FOR MIRRORS



116,590 FRANK M. HAWKINS.
REVERSIBLE SEATS.



116,591 HARRISON H. HESKETT,
WATCHMAKERS' CHUCKS.



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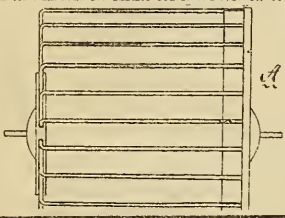
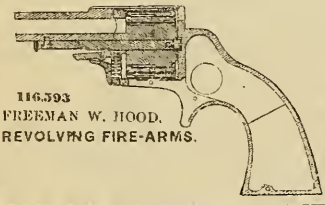
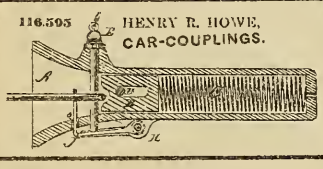
BENJAMIN B. HILL AND JOHN R. HILL



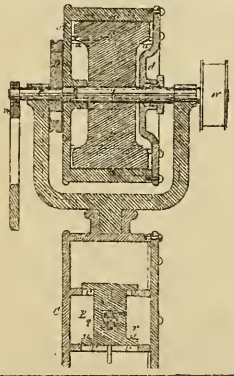


116,593
FREEMAN W. HOOD.
REVOLVING FIRE-ARMS.

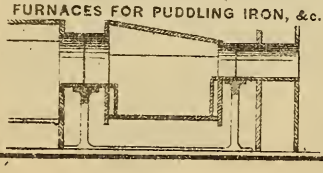
116,595 HENRY R. HOWE,
CAR-COUPLINGS.



116,596 REUBEN K. HUNTOON,
GOVERNORS FOR STEAM-ENGINES.



116,598 RICHARD JENKINS,
FURNACES FOR PUDDLING IRON, &c.



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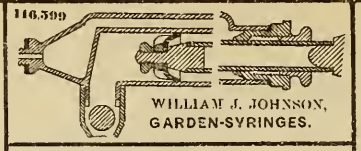
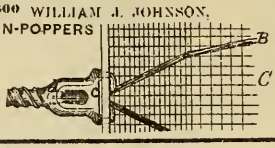


WILLIAM J. JOHNSON,
GARDEN-SYRINGES.

116,600 WILLIAM J. JOHNSON,
CORN-POPPERS



116,601 DENNIS A. KELLOGG,
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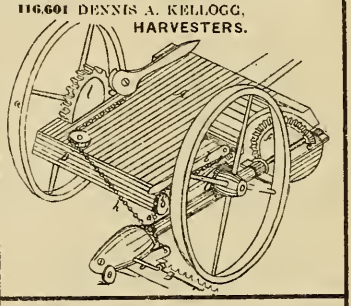
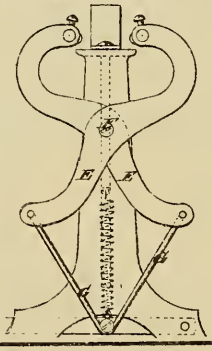
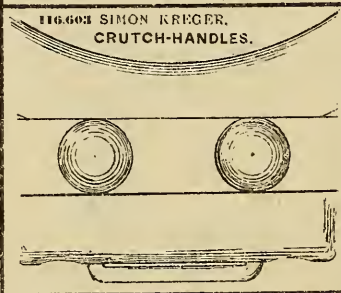


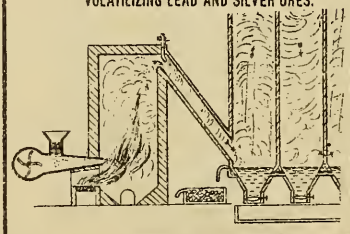
116,602 JOHN N. KIKENDALL, JR.,
MACHINES FOR LAYING OUT SASH.



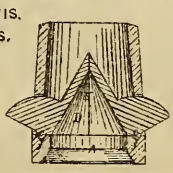
116,603 SIMON KREGER.
CRUTCH-HANDLES.



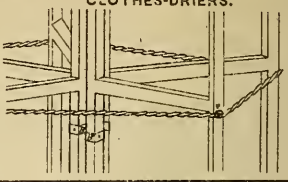
116,604 GEORGE T. LEWIS.
VOLATILIZING LEAD AND SILVER ORES.



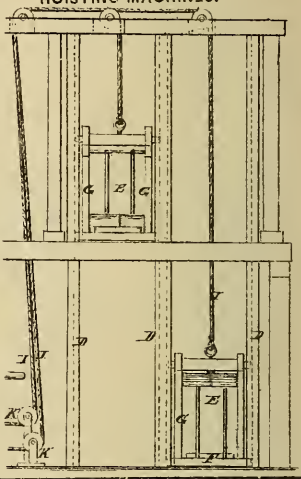
116,605 JAMES LEWIS.
EXHAUST-NOZZLES.



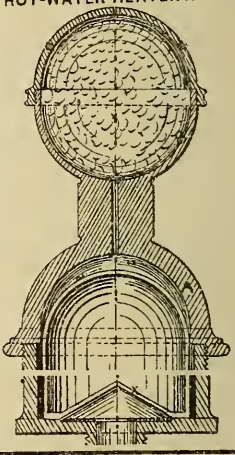
116,606 CHARLES F. LINSCOTT,
CLOTHES-DRIERS.



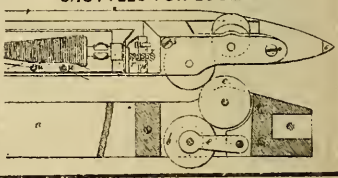
116,607 WILLIAM M. LLOYD.
HOISTING-MACHINES.



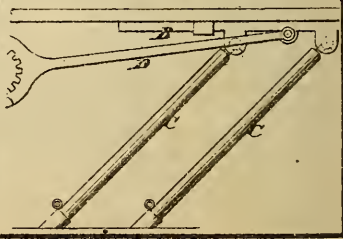
116,608 WILLIAM H. LUNGREN.
HOT-WATER HEATERS.



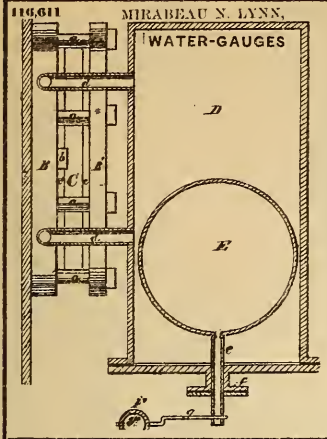
116,609 JAMES LYALL.
SHUTTLES FOR LOOMS.



116,610 MIRABEAU N. LYNN.
STEAM-PLOWS.



116,611 MIRABEAU N. LYNN,
WATER-GAUGES



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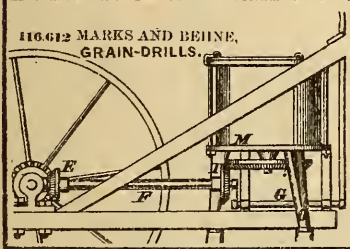
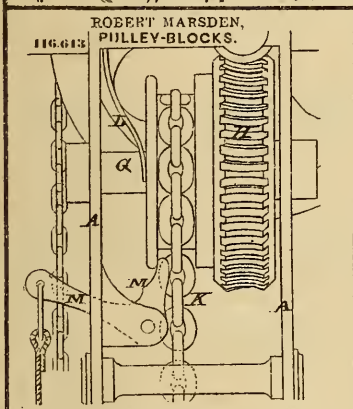
GRAIN-DRILLS.



ROBERT MARSDEN,
116,613 PULLEY-BLOCKS.



MOSES S. MARSHALL,
WASHING-MACHINES.
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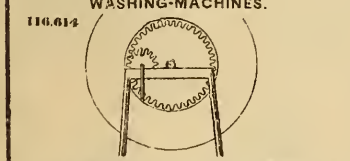
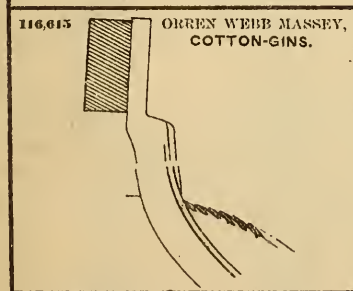
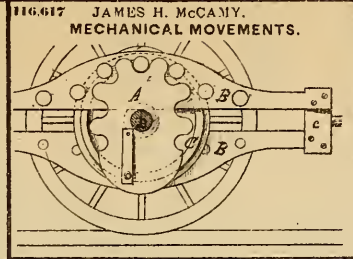


116,615 ORREN WEBB MASSEY,
COTTON-GINS.

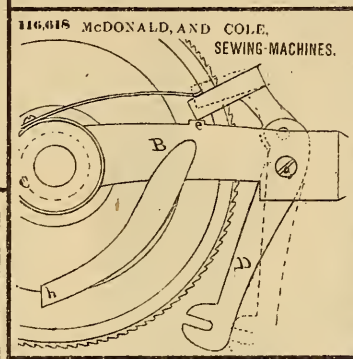


116,616 VICTOR E. MAUGER,
CYLINDER PRINTING-PRESSES.

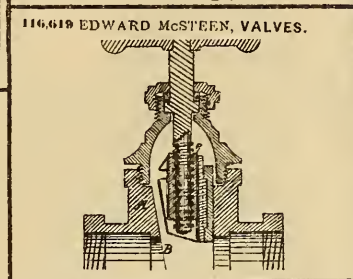
116,617 JAMES H. McCAMY.
MECHANICAL MOVEMENTS.



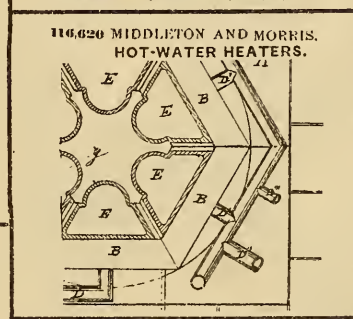
116,618 McDONALD, AND COLE,
SEWING-MACHINES.



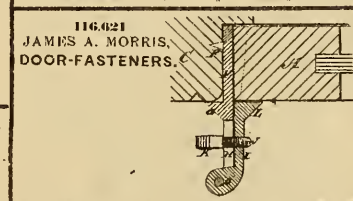
116,619 EDWARD McSTEEN, VALVES.



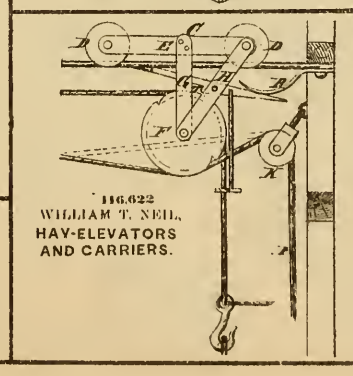
116,620 MIDDLETON AND MORRIS.
HOT-WATER HEATERS.



116,621
JAMES A. MORRIS,
DOOR-FASTENERS.

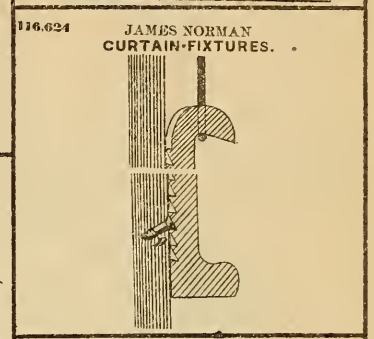


116,622
WILLIAM T. NEIL,
HAY-ELEVATORS
AND CARRIERS.

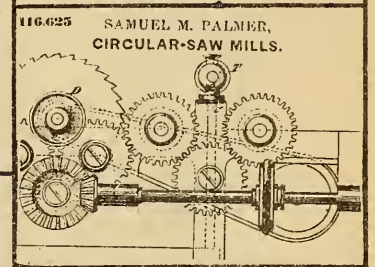


116,623 JONAH NEWTON,
FRAMING-JOINTS.

116,624 JAMES NORMAN
CURTAIN-FIXTURES.

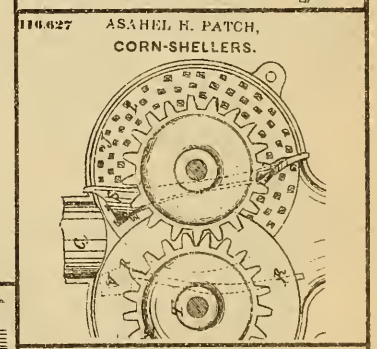


116,625 SAMUEL M. PALMER,
CIRCULAR-SAW MILLS.

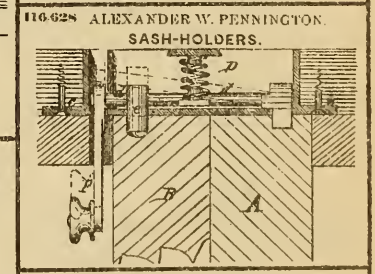


116,626
PARSONS,
GETCHELL, AND
FAIRFIELD.
TANNERS' STEEPERS.

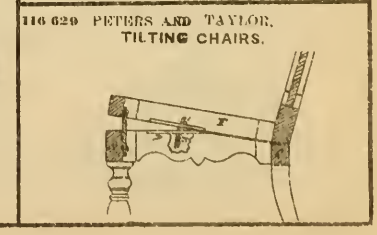
116,627 ASAHEL H. PATCH,
CORN-SHELLERS.



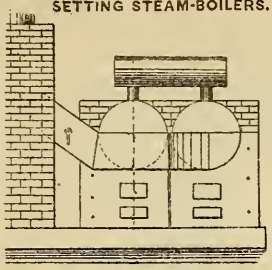
116,628 ALEXANDER W. PENNINGTON.
SASH-HOLDERS.



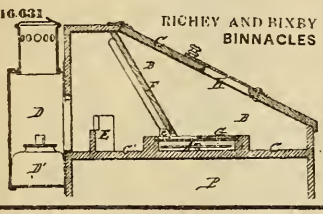
116,629 PETERS AND TAYLOR.
TILTING CHAIRS.



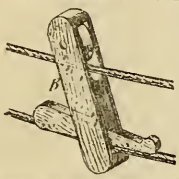
116,630 ORRIN RANNEY,
SETTING STEAM-BOILERS.



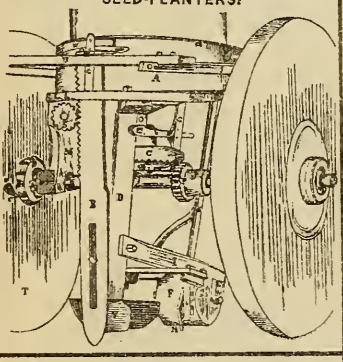
116,631 RICHEY AND BIXBY
BINNACLES



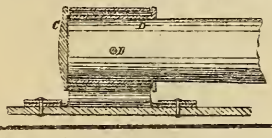
116,632 THOMAS RILEY,
CLOTHES-LINE SUPPORTERS.



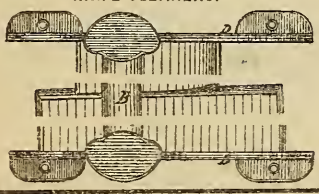
116,633 BENJAMIN SAUNDERS,
SEED-PLANTERS.



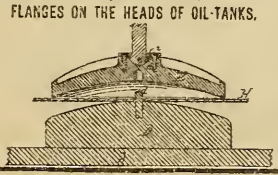
116,634 MORRIS SCHWERIN,
FASTENING HANDLES TO SATCHELS.



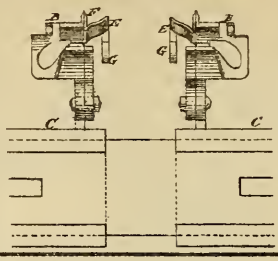
116,635 JOSEPH SEEBERGER,
KNIFE-CLEANERS.



116,636 GEORGE SELDEN,
FLANGES ON THE HEADS OF OIL-TANKS.



116,637 CHARLES SHELMIDINE,
SHINGLE-MACHINES.



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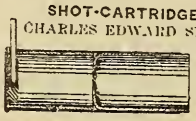
DON CARLOS SMART,
CLOTHES-DRIERS.

116,640 SHOT-CARTRIDGES
CHARLES EDWARD SNEIDER,



116,611 ENOS SPALDING,
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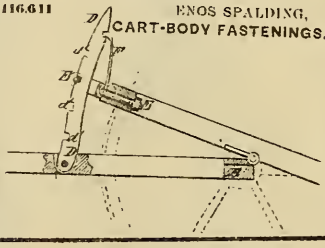
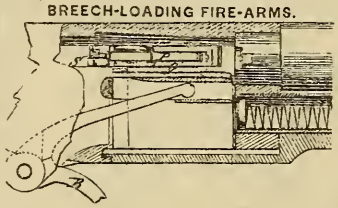
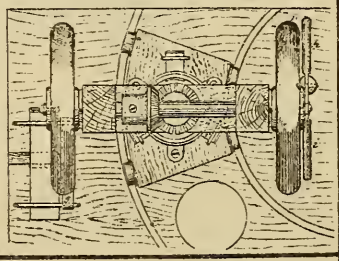


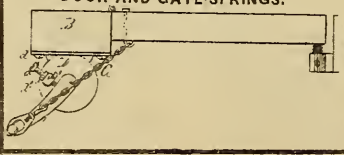
116,612 GEORGE R. STETSON,
BREECH-LOADING FIRE-ARMS.



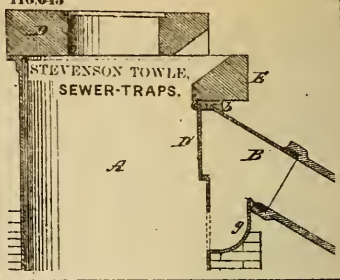
116,613 JOHN W. STOCKWELL,
DRAIN-PIPE MACHINES.



116,644 M. FRANK TABER,
DOOR AND GATE-SPRINGS.



116,645
STEVENSON TOWLE,
SEWER-TRAPS.



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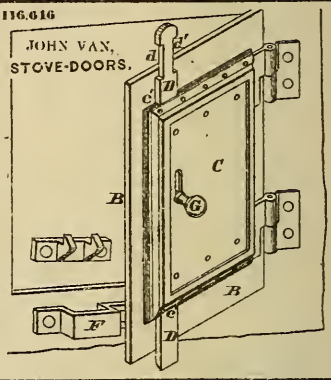
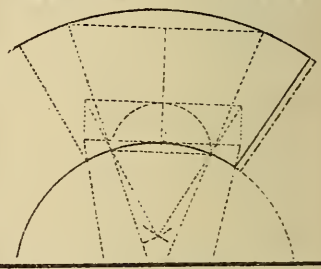
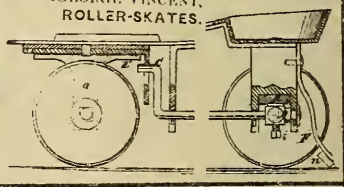
JOHN VAN,
STOVE-DOORS.



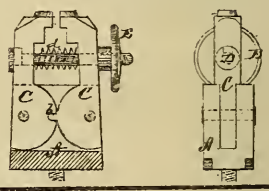
116,647 ORLANDO B. VANDENBURG,
METHODS OF DRAWING PATTERNS



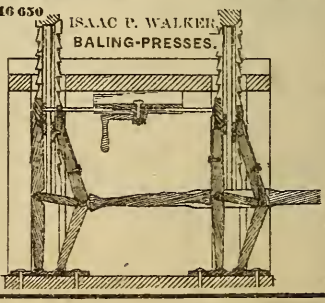
116,648 GEORGE VINCENT,
ROLLER-SKATES.



116,649 ALFRED H. WAGNER,
LATHE-CHUCKS.



116,650 ISAAC P. WALKER,
BALING-PRESSES.



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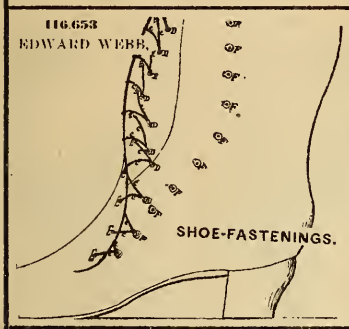
LYMAN I. WAY,
INSECT-TRAPS.

116,653
EDWARD WEBB,
SHOE-FASTENINGS.



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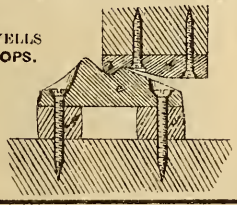
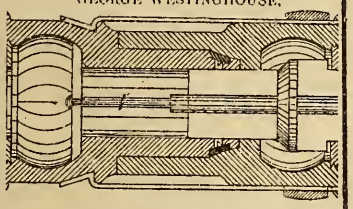
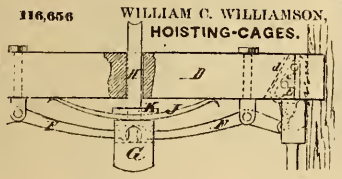
ISAAC J. WELLS
DOOR-STOPS.



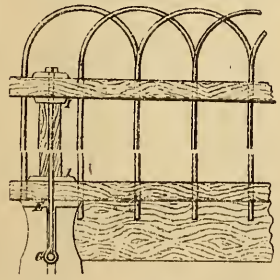
116,655 VALVE DEVICES FOR STEAM-POWER
GEORGE WESTINGHOUSE,



116,656 WILLIAM C. WILLIAMSON,
HOISTING-CAGES.



116,657 TIMOTHY C. WOOD,
FENCES.



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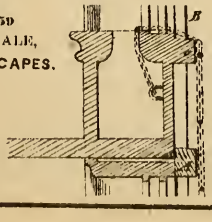
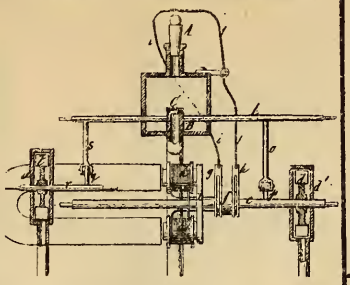
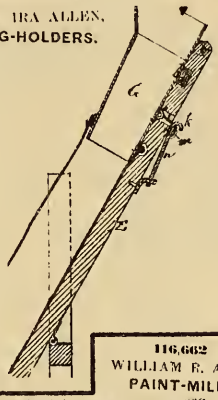
EZRA ALE,
FIRE-ESCAPES.



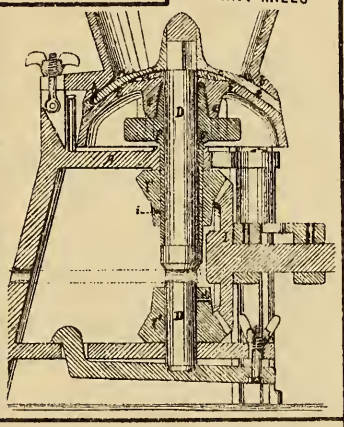
116,660 ALLEN AND DEWEY,
MAGNETO-ELECTRIC GAS-LIGHTING APPARATUS.



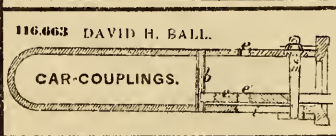
116,661 IRA ALLEN,
BAG-HOLDERS.



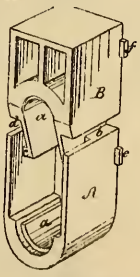
116,662
WILLIAM E. ANE,
PAINT-MILLS



116,663 DAVID H. BALL,
CAR-COUPLINGS.



116,665 ELBRIDGE G.
W. BARTLETT,
CLOTHES-WRINGERS.



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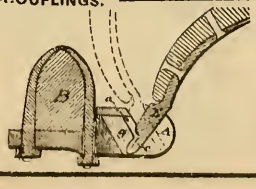
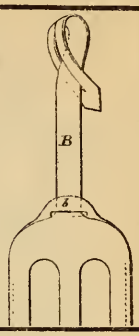
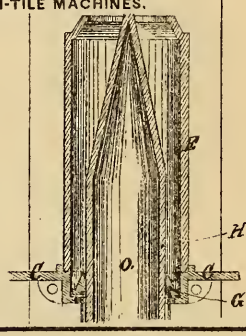
ALMA BEDFORD,
THILL-COUPLINGS.



116,667 FRANCIS XAVIER
BELLERIVE,
BAGGAGE-CHECKS.

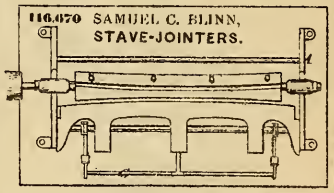


116,668 HIRAM BISSELL,
DRAIN-TILE MACHINES.



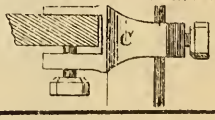
116,669 RICHARD C. BLAKE,
STEAM-GAUGES.

116,670 SAMUEL C. BLINN,
STAVE-JOINTERS.

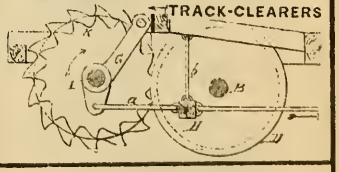


116,671
AUGUSTUS O.
BOURN,
STEAM-PACKING.

116,672 DANIEL BOWKER,
JACK-POSTS FOR PEGGING SHOES.

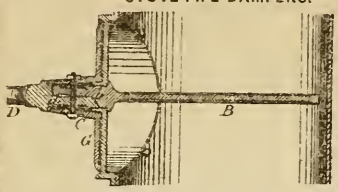


116,673 MICHAEL CROLL BOYER,
TRACK-CLEARERS

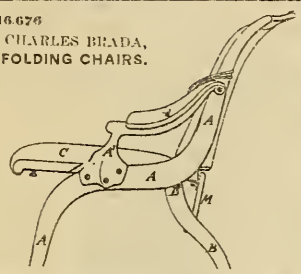


116,674 NATHANIEL A. BOYNTON,
HEATING-STOVES.

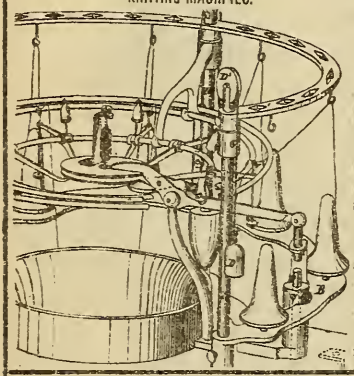
116,675 NATHANIEL A. BOYNTON, STOVE-PIPE DAMPERS.



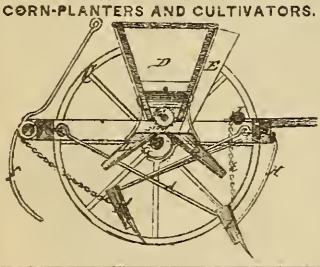
116,676 CHARLES BRADA, FOLDING CHAIRS.



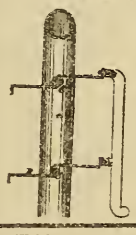
116,677 HORACE C. BRADFORD, KNITTING-MACHINES.



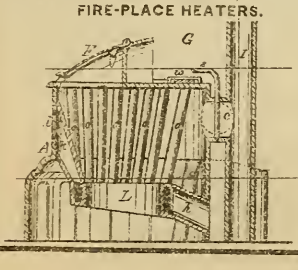
116,678 EDWARD BRAGGINS. CORN-PLANTERS AND CULTIVATORS.



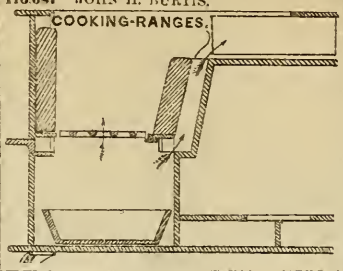
116,679 WILLIAM E. BROCK, WINDOW-BLINDS.



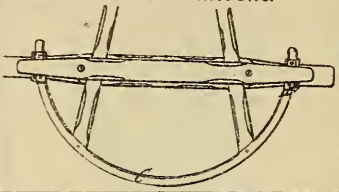
116,680 JOHN H. BURTIS, FIRE-PLACE HEATERS.



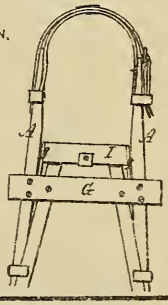
116,681 JOHN H. BURTIS. COOKING-RANGES.



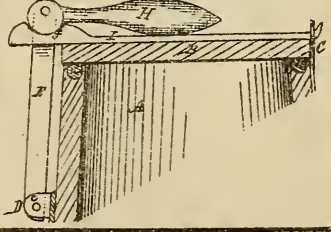
116,682 VOSCO M. CHAFEE. SLIDERS FOR WAGONS.



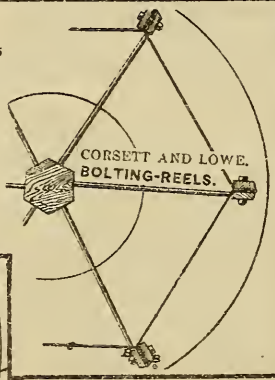
116,683 HARLOW F. CHAPIN. ANIMAL-POKES.



116,684 JOHN L. CONE, PACKAGES FOR BUTTER

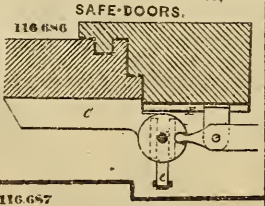


116,685 CORSETT AND LOWE. BOLTING-REELS.



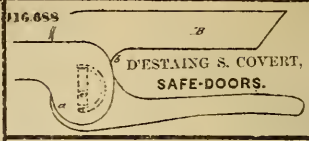
D'ESTAINC S. COVERT, SAFE-DOORS.

116,686



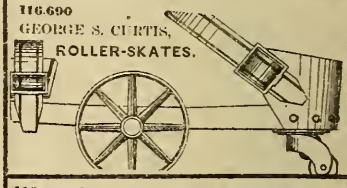
116,687 CALVIN CROWELL, SHIRT-BOSOM EXPANDERS.

116,688 D'ESTAING S. COVERT, SAFE-DOORS.

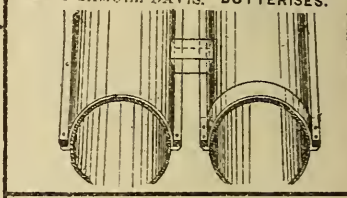


116,689 GEORGE CSAPP, ROCKING-CHAIRS.

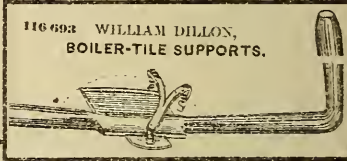
116,690 GEORGE S. CURTIS, ROLLER-SKATES.



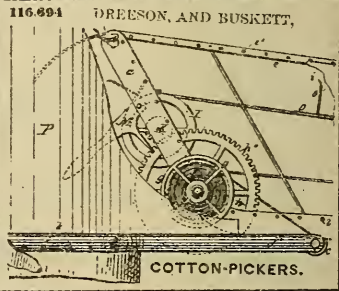
116,692 SAMUEL DAVIS. BUTTERISES.



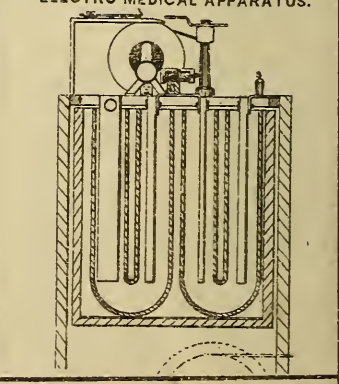
116,693 WILLIAM DILLON, BOILER-TILE SUPPORTS.



116,694 DREESON, AND BUSKETT, COTTON-PICKERS.



116,695 LUIS DRESCHER, ELECTRO-MEDICAL APPARATUS.



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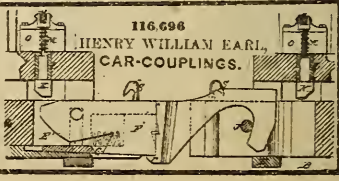
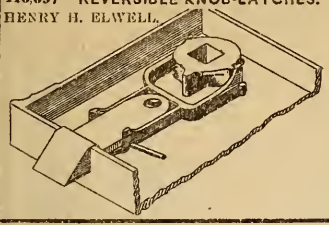


116,697 REVERSIBLE KNOB-LATCHES.
HENRY H. ELWELL.



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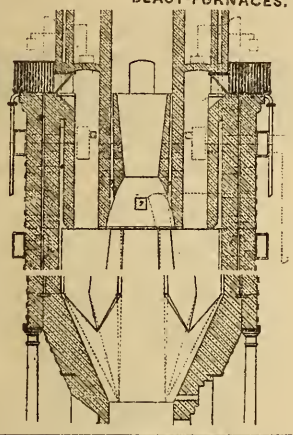
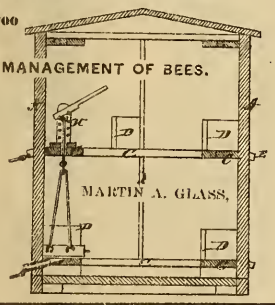
WILLIAM FERRIE,
BLAST-FURNACES.

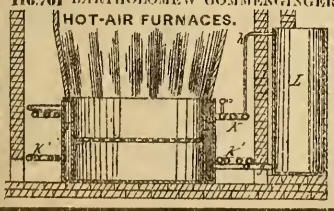


116,699
BRIDGET FIELDING,
COAL-SCUTTLES.

116,700
MANAGEMENT OF BEES.
MARTIN A. GLASS.



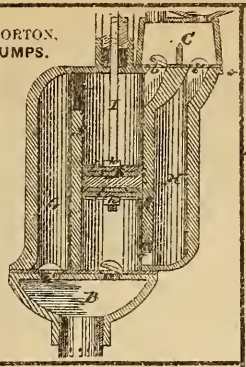
116,701 BARTHOLOMEW GOMMENGINGER,
HOT-AIR FURNACES.



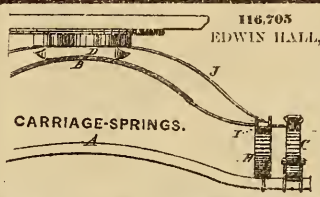
116,702 ALBERT GOODYEAR.

AXLE-BOXES.

116,703
DANIEL J. GORTON.
PUMPS.



116,705
EDWIN HALL,



CARRIAGE-SPRINGS.

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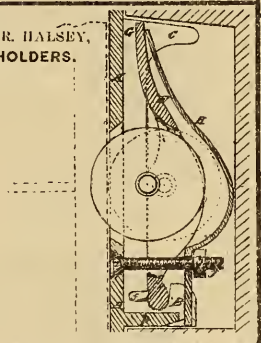
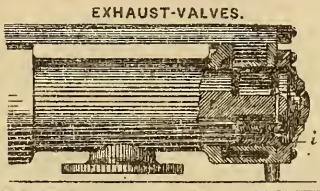
HERRICK R. HALSEY,
SASH-HOLDERS.



116,707 ROBERT W. HAMILTON.
EXHAUST-VALVES.



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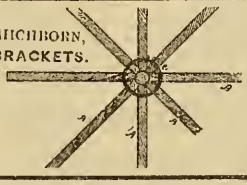
WILLIAM HICHBORN,
FLOWER-BRACKETS.



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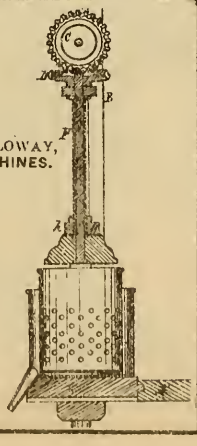
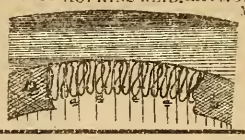
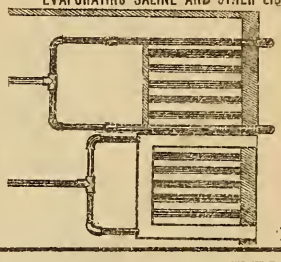
EPHRAIM S. HOLLOWAY,
STUFFING-MACHINES.



116,710 HOPKINS REID, RAYMOND, AND MEEKER.
HAT

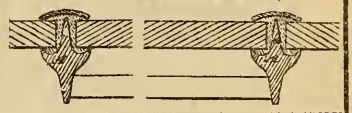


116,711 JOHN HOWARTH.
EVAPORATING SALINE AND OTHER LIQUIDS.



116,712 WILLIAM C. HUBBARD,
SPRING BED-BOTTOMS.

116,714 JAMES L. JACKSON,
FRAMES FOR SASHES.



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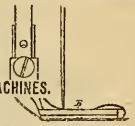
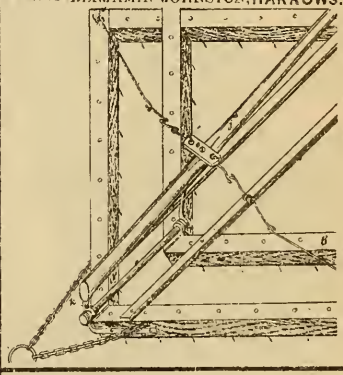
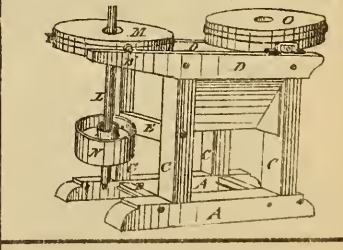
WILLIAM JOHNSON.
ATTACHMENTS FOR SEWING-MACHINES.



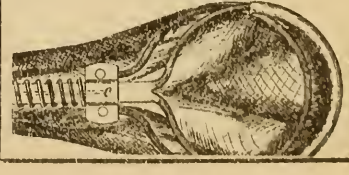
116,716 BENJAMIN JOHNSTON, HARROWS.



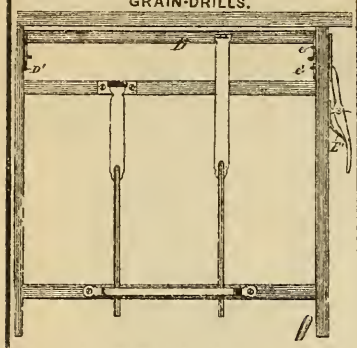
116,717 CHARLES KAESTNER, GRIST-MILLS.



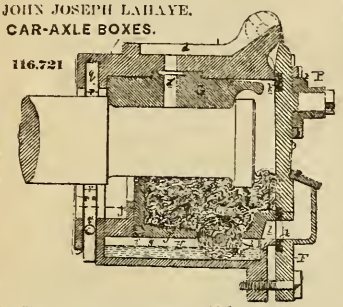
116,718 JOHN C. KEARNS.
FRUIT-GATHERERS.



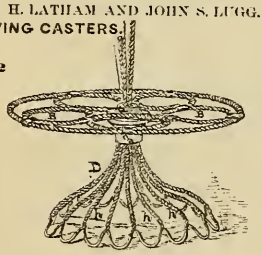
116,719 BENJAMIN KUHNS,
GRAIN-DRILLS.



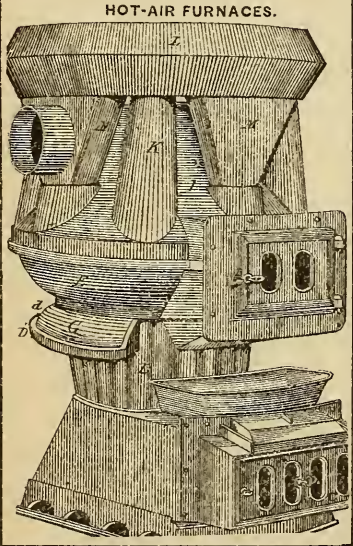
JOHN JOSEPH LAHAYE,
CAR-AXLE BOXES.
116,721



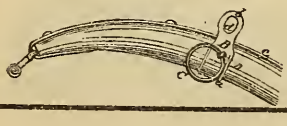
CYRUS H. LATHAM AND JOHN S. LUGG,
REVOLVING CASTERS.
116,722



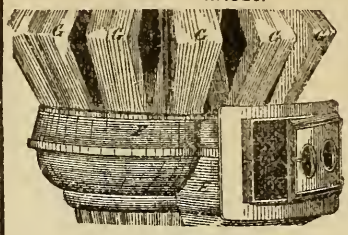
116,723 JAMES A. LAWSON,
HOT-AIR FURNACES.

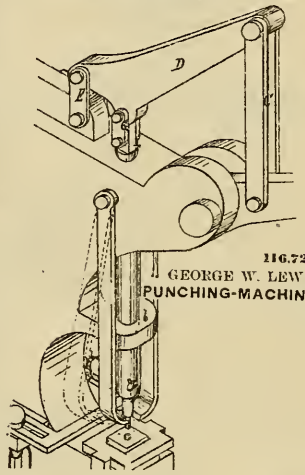


116,725 GEORGE J. LETCHWORTH,
HAMES.



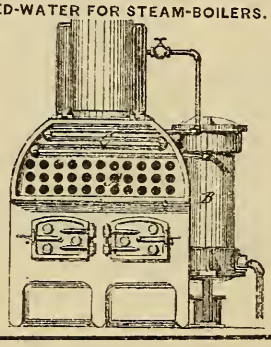
116,724 JAMES A. LAWSON
HOT-AIR FURNACES.



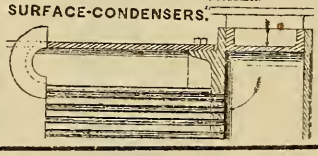


116,726
GEORGE W. LEWIS,
PUNCHING-MACHINES.

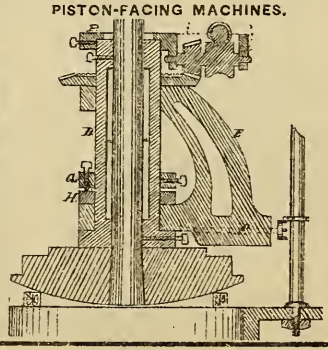
116,727
WILLIAM A. LIGHTHALL,
FEED-WATER FOR STEAM-BOILERS.



116,728 WILLIAM A. LIGHTHALL
SURFACE-CONDENSERS.



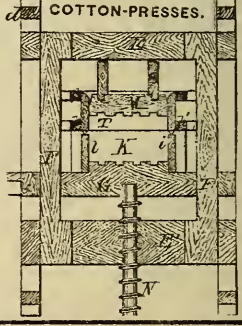
116,730 LOWERREE AND SANDERSON
PISTON-FACING MACHINES.



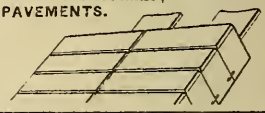
116,731
ISAAC S. MARCY,
HAIR-CURLERS.

116,732 JACOB McCLURE.
KNIFE AND PENCIL-SHARPENERS.

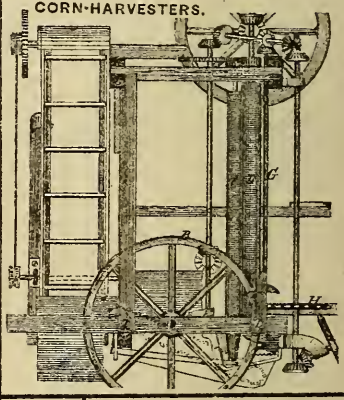
116,733 ALEXANDER B. McGONNIGIL,
COTTON-PRESSES.



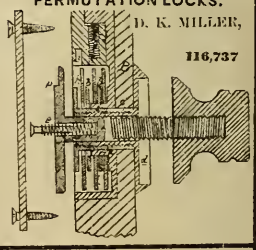
116,734 EDGAR McMULLEN,
WOOD PAVEMENTS.



116,735 JAMES I. METTLER,
CORN-HARVESTERS.

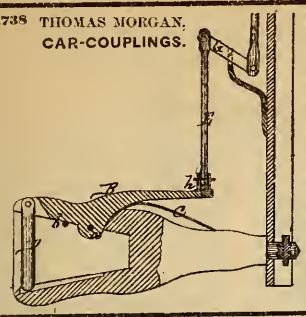


PERMUTATION LOCKS.
D. K. MILLER,
116,737

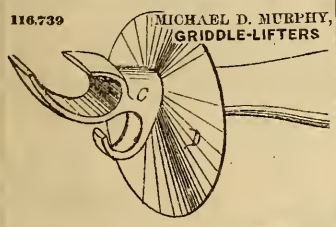


116,736
PHILIP MICHAEL,
WEEDING-TOOLS.

116,738 THOMAS MORGAN,
CAR-COUPLINGS.



116,739 MICHAEL D. MURPHY,
GRIDDLE-LIFTERS



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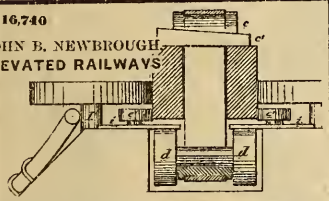
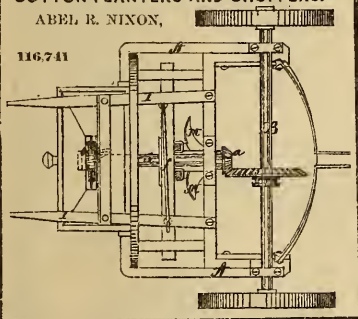
JOHN B. NEWBROUGH,
ELEVATED RAILWAYS



COTTON-PLANTERS AND CHOPPERS.
ABEL R. NIXON,
116,741



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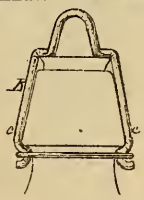
GEORGE OTTO AND
GEORGE W. BAUER,
BOTTLE-FASTENERS.



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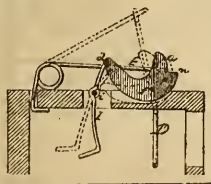
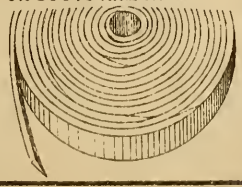
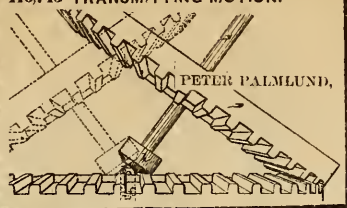
AMOS OVAITT,
MOUSE-TRAPS.



116,744 HENRY F. PACKARD.
RANDS FOR BOOTS AND SHOES.



116,745 TRANSMITTING MOTION.
PETER PALMLUND,



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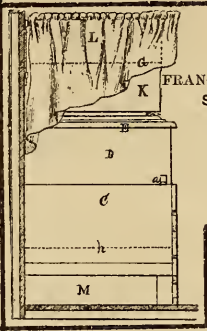
FRANCIS W. PARSONS,
SLEEPING-CARS.



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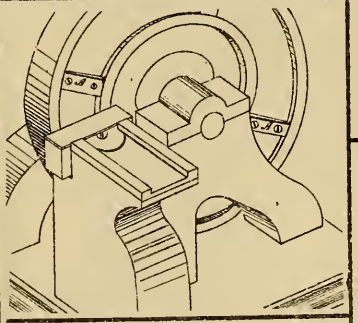
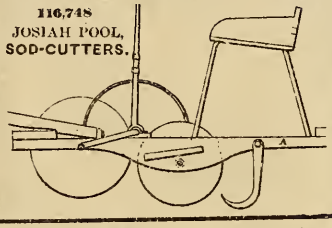
PAULL AND
MORGAN,
NAIL-MACHINES



116,748
JOSIAH POOL,
SOD-CUTTERS.



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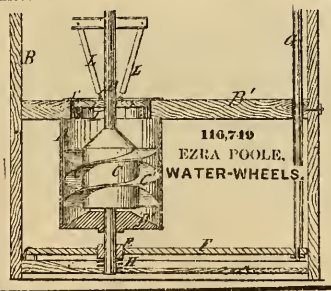
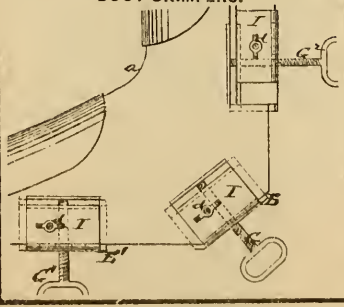
WATER-WHEELS.



116,750 ELCANAH POWELL,
BOOT-CRIMPERS.



116,751 116,752.
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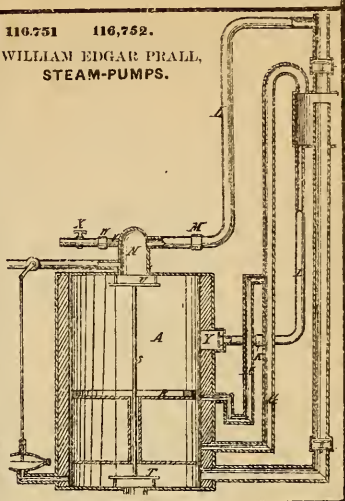
STEAM-PUMPS.



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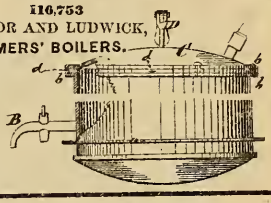
PRYOR AND LUDWICK,
FARMERS' BOILERS.



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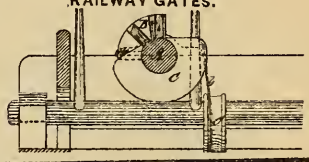
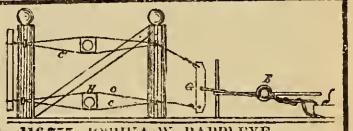
RAILWAY GATES.





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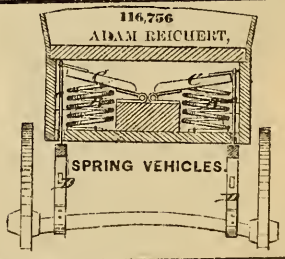
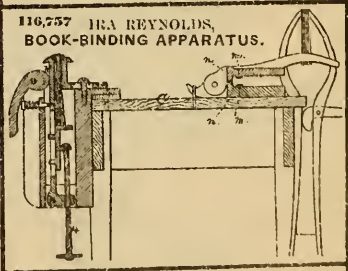
WIRE FENCES.

116,756
ADAM REICHERT,



SPRING VEHICLES.

116,757 IRA REYNOLDS,
BOOK-BINDING APPARATUS.



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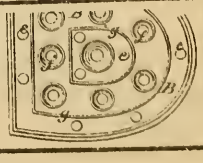
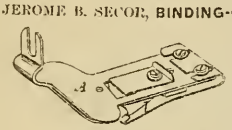
RICHARDSON
AND
HACKER.
REVERSIBLE
BOOT-HEELS.

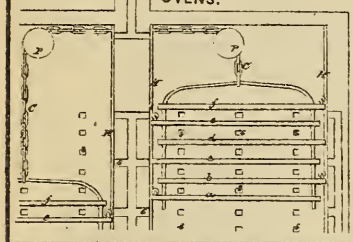


116,760 CHARLES M. SCHUTZ, TRAVELING-BAGS, &c.

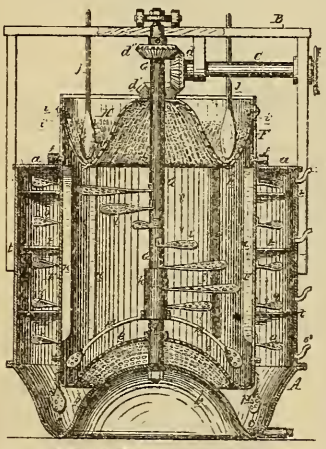
116,761 JEROME B. SECOR, BINDING-GUIDES



116,762 ISAAC H. SHAVER, OVENS.



116,763 WILLIAM CROWTHER SHAW, AMALGAMATING ORES.



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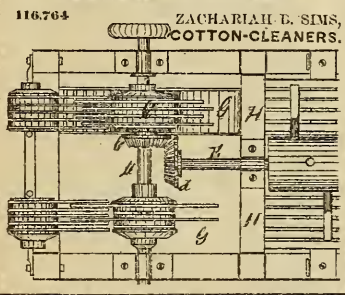
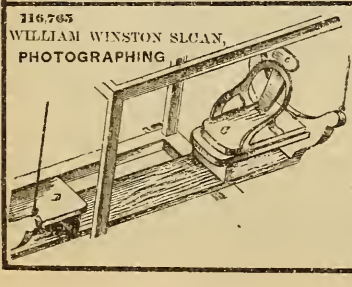
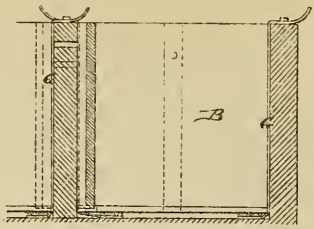


116,765 WILLIAM WINSTON SLOAN, PHOTOGRAPHING



116,766 NOAH SMITH, TAN-VATS.



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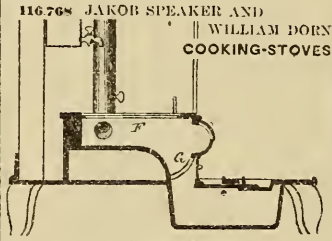
116,768 JAKOB SPEAKER AND WILLIAM DORN, COOKING-STOVES.



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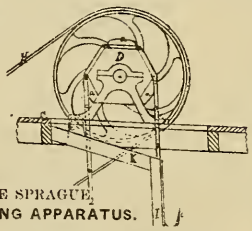

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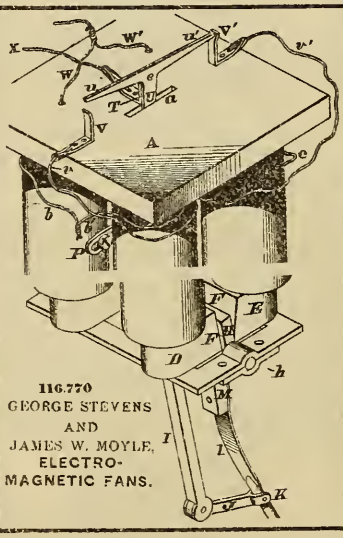
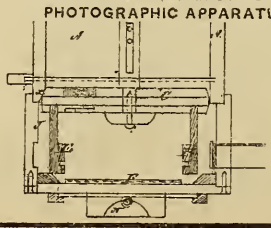


116,771 JOHN STOCK AND JACOB STOCK, PHOTOGRAPHIC APPARATUS.



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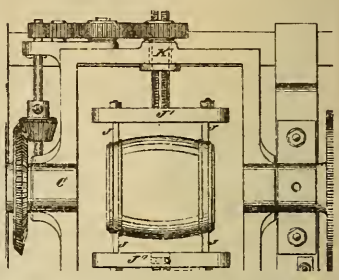
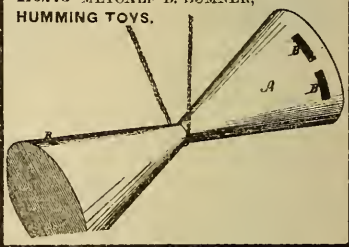


116,773 METCALF B. SUMNER, HUMMING TOYS.



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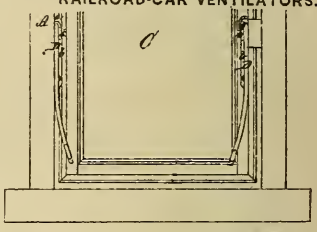
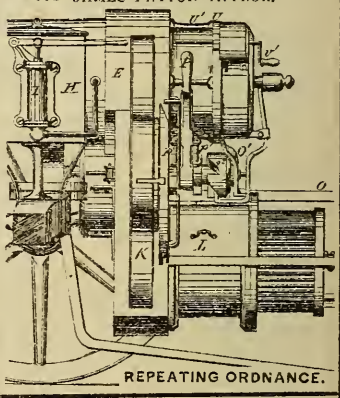
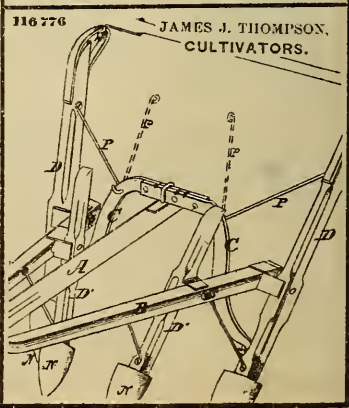


116,775 JAMES PATTON TAYLOR, REPEATING ORDNANCE.



116,776 JAMES J. THOMPSON, CULTIVATORS.



THOMAS JEFFERSON TRAPP,
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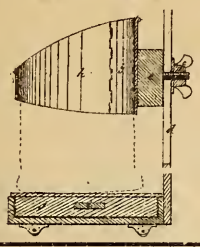

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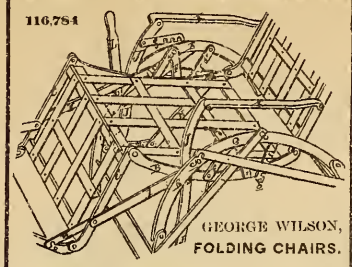

GEORGE WILSON,
FOLDING CHAIRS.

ISAAC A. DUNHAM,
EDGE-PLANES
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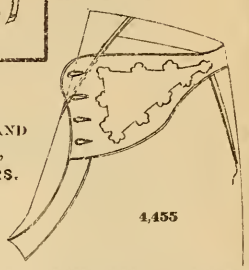
FISK,
CLARK, AND
FLAGG,
DRAWERS.



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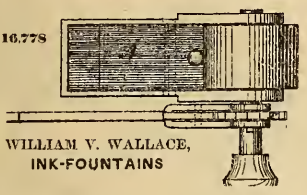

WILLIAM V. WALLACE,
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GEORGE WOODS,
SADDLE-TREES.

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FERDINAND KING, ILLUMINATING-GASES.
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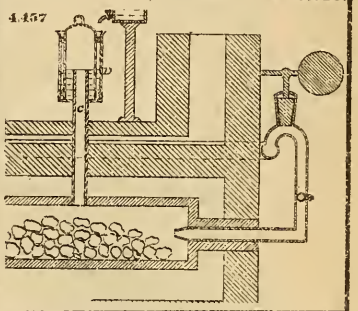

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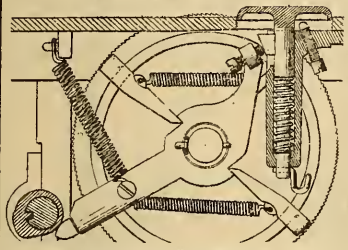
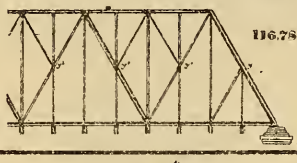
SEWING-MACHINES.



ALBERT FINK, BRIDGE-TRUSSES.



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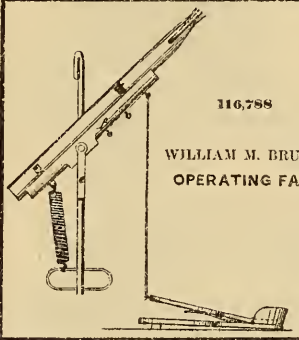

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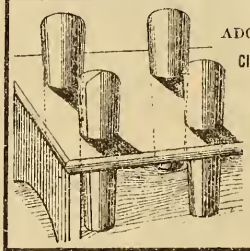
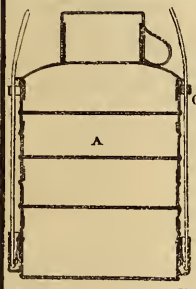
WILLIAM M. BRUTON,
OPERATING FANS.

ADOLPH PEARL,
CIGAR-BUNCHES.
4,458





GEORGE WETZLER,
DINNER-PAILS.
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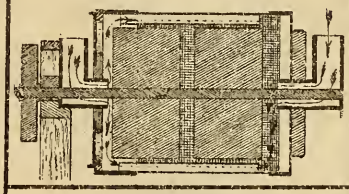
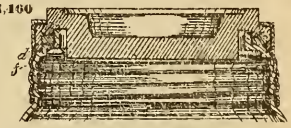
CHARLES D. ROGERS,
BRUSH-STOCKS.
4,459

4,451 WILSON AGER,
DECORTICATING GRAIN.



HENRY E. SHAFFER, FRUIT-JARS.
4,460



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COPYING-PRESSES.
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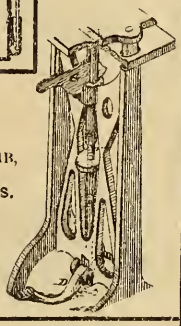

WILSON AGER,
DECORTICATING GRAIN.
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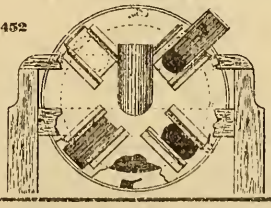

THOMAS A. WILEY. CIGAR-BOXES.
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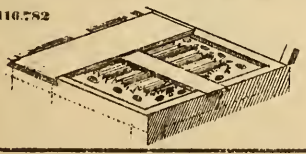

EDWARD WARREN,
HOES.
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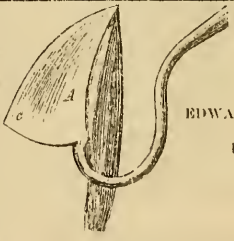
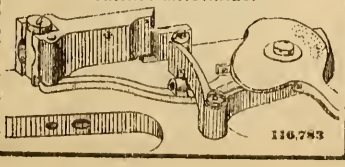


WILLCOX, AND CARLETON,
SEWING-MACHINES.



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DAVID N. B. COFFIN, JR.,
CAPSTANS AND WINDLASSES.
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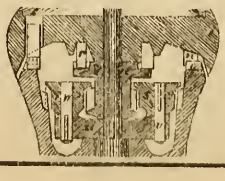
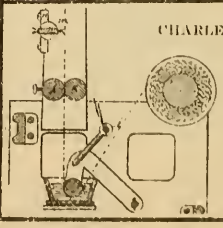


CHARLES H. WATERS,
PAINTING
WIRE-CLOTH.
4,462



ILLUSTRATIONS OF PATENTS

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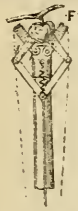
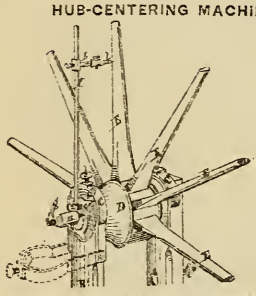
JULY 11, 1871.

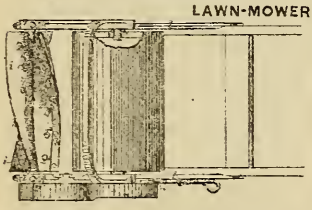
116,789 GEORGE ALDRIDGE, FRUIT-GATHERERS.



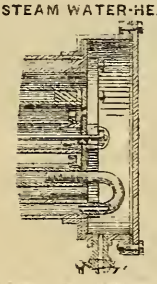
116,790 KING P. ALLEN. HUB-CENTERING MACHINES



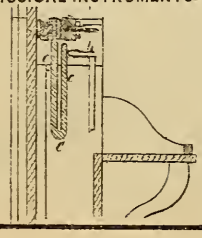
116,791 WILLIAM ALLEN, LAWN-MOWERS



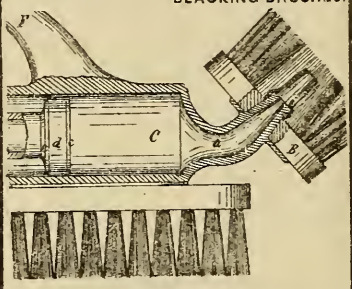
116,792 JAMES ARGALL. STEAM WATER-HEATERS



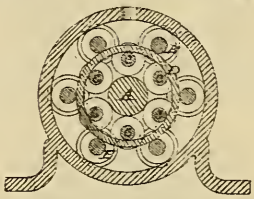
116,793 THOMAS ATKINS AND HENRY DREWER. MUSICAL INSTRUMENTS



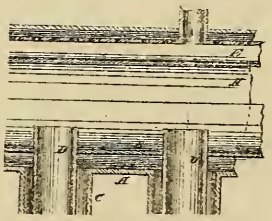
116,794 BENJAMIN FRANKLIN AVERILL BLACKING-BRUSHES.



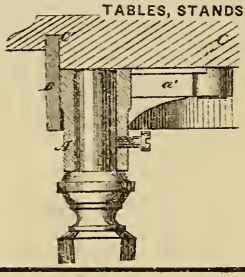
116,795 BURR C. BAKER JOURNAL-BOXES



116,796 GEORGE A. BARNARD, STEAM-GENERATORS.



116,797 DANIEL K. BARNHART, TABLES, STANDS, &c.



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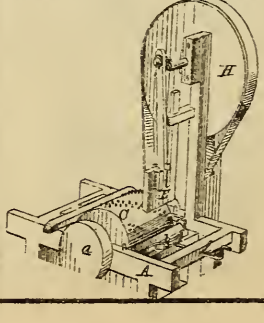
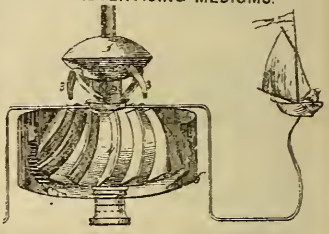
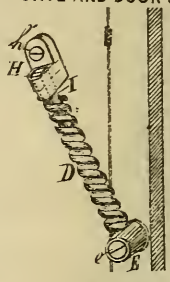


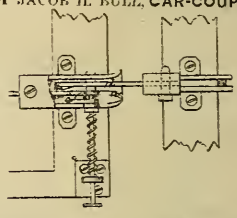
116,799 JACKSON OGDEN BELKNAP, ADVERTISING MEDIUMS.



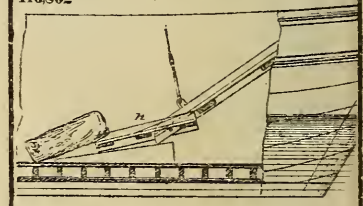
ALONZO T. BOON AND LUCIEN MILLS GATE AND DOOR-SPRINGS. 116,800



116,801 JACOB H. BULL, CAR-COUPLINGS

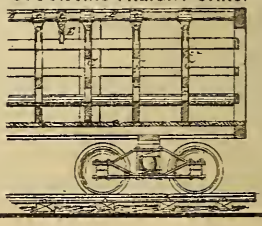


116,802 GILBERT BURHANS, ICE RUNS

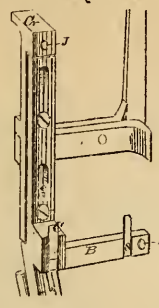


116,803 FRANCIS G. BUTLER, EVAPORATING APPARATUS

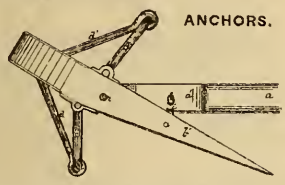
116,804 JAMES B. CALKINS, STOCK-AND-FREIGHT CARS.



116,805 FREDERIC CASTLE
GAUGES AND TRY-SQUARES.



116,806 CHARLES A. CHAMBERLIN
ANCHORS.



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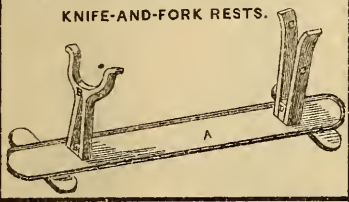
KNIFE-AND-FORK RESTS.



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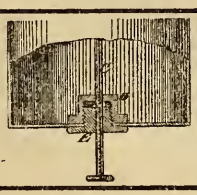
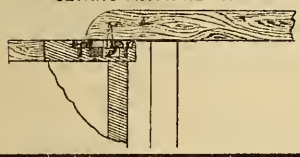
PARIS CHILDS,
OIL-CANS.



116,809 JOHN C. COCHRAN
SEWING-MACHINE TABLES.



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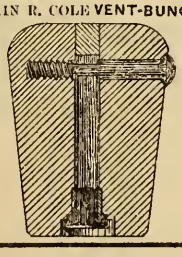
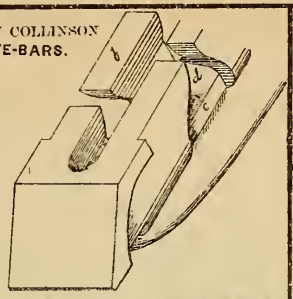
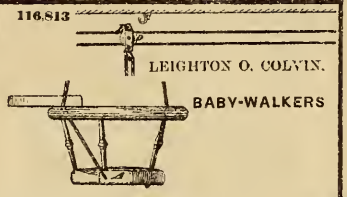


116,811
COLLIGNON, COLLIGNON,
AND COLLIGNON,
FOLDING CHAIRS.

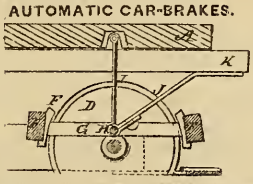
116,812
HENRY COLLINSON
GRATE-BARS.



116,813
LEIGHTON O. COLVIN.
BABY-WALKERS



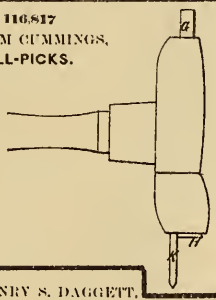
116,814 JOSEPH R. CRABILL
AUTOMATIC CAR-BRAKES.



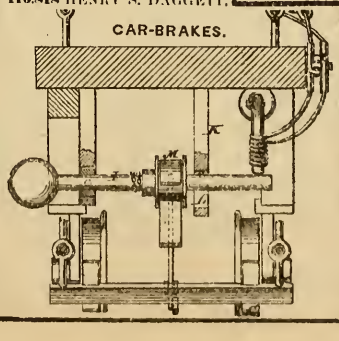
116,815 DELOS V. CRANDALL
SPRING BED-BOTTOMS.

116,816 CHARLES CROSELMIRE,
JOININGS FOR WATCH-CHAINS.

116,817
JOTHAM CUMMINGS,
MILL-PICKS.

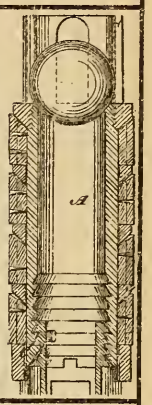


116,818 HENRY S. DAGGETT.
CAR-BRAKES.



116,819 MATHEW DELANEY
RUBBER CUSHIONS FOR BILLIARD-TABLES.

116,820
TRONSON DRAPER
OIL-PUMP VALVES.



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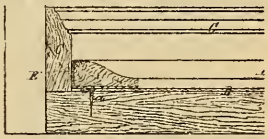
HENRY W. ESKILDSON
CARPET-PROTECTORS.



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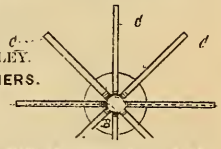
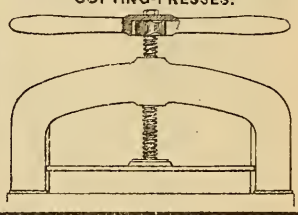
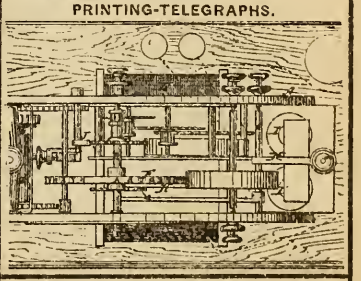
PHILIP FARLEY.
TUBE-CLEANERS.



116,824 JOHN FENSOM,
COPYING-PRESSES.



116,826 DAVID FLANERY.
PRINTING-TELEGRAPHS.



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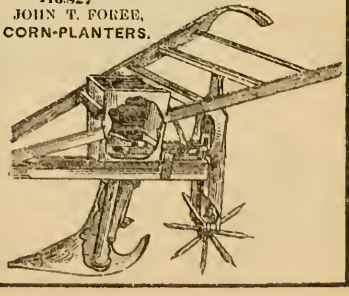
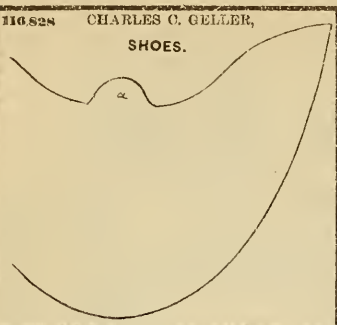
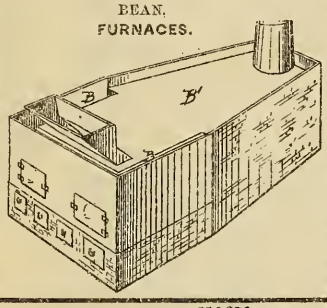
JOHN T. FOREE,
CORN-PLANTERS.



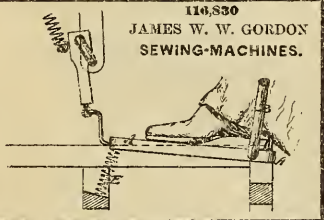
116,828 CHARLES C. GELLER,
SHOES.



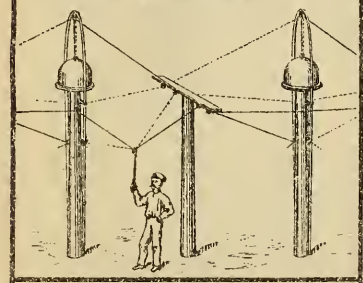
116,829 GOODSELL, GOODSELL, AND BEAN,
FURNACES.



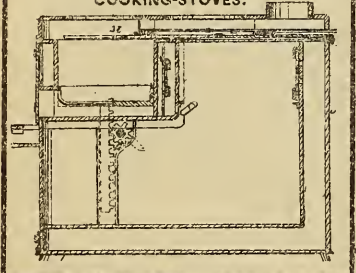
116,830
JAMES W. W. GORDON
SEWING-MACHINES.



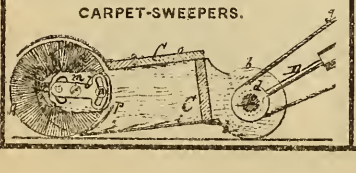
116,831 WILLIAM GREEN,
RAILWAY-SIGNAL APPARATUS.



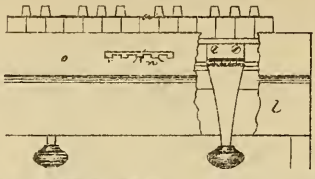
116,832 SETH GREGORY,
COOKING-STOVES.

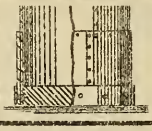


116,833 DON C. HALL,
CARPET-SWEEPERS.



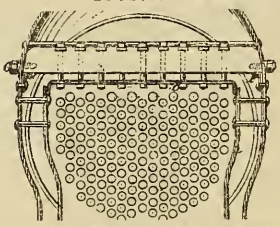
116,834 EMMONS HAMLIN,
MUSICAL INSTRUMENTS.





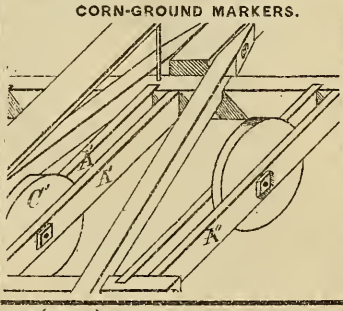
EZRA HASKELL,
CANS FOR ROVING.
116,835

116,836 HAYES AND JEFFERY,
LOCOMOTIVE-BOILERS.

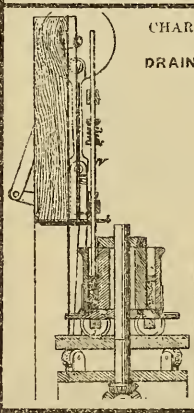


116,837 DANIEL KELLY, BORING-BITS.

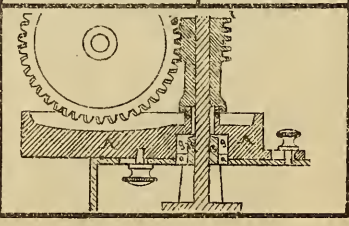
116,838 FRANCIS B. KENDALL,
CORN-GROUND MARKERS.



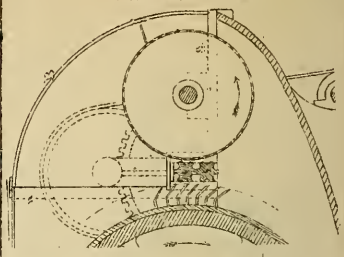
CHARLES W. KENNEDY,
DRAIN-PIPE MACHINES.
116,839



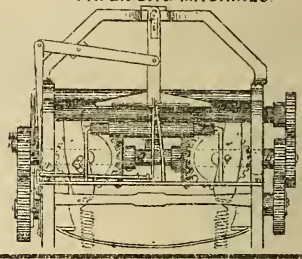
RICHARD KITSON,
FEED-REGULATING
MECHANISMS
116,840



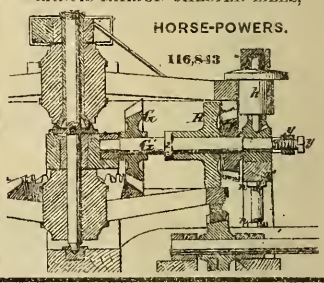
116,841 RICHARD KITSON,
WASTE-PICKERS.



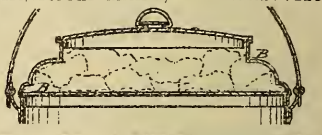
116,842 MARGARETT E. KNIGHT,
PAPER-BAG MACHINES.



FRANCIS MARION CHESTER LILES,
HORSE-POWERS.
116,843

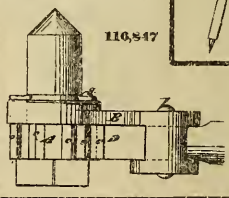


116,844 JOHN LIMING, BUTTER-KETTLES.



JAMES H. LOOK, JR.,
ROOFING-BRACKETS.
116,845

JAMES W. MAHLON,
RATCHET-DRILLS.
116,847



116,848 JOSEPH P. MANTON,
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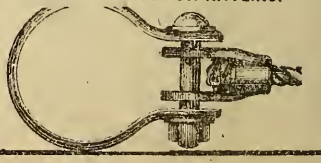

REUBEN A. McCAULEY,
HOUSEHOLD IMPLEMENTS.
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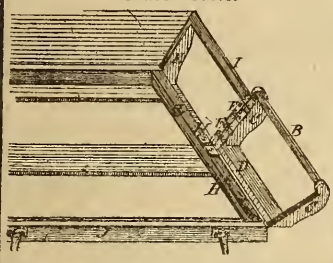
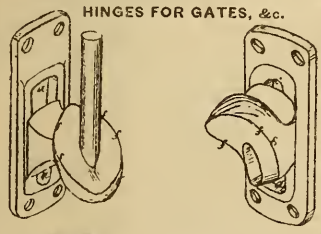
JAMES W. McDONOUGH 116,850
FOLDING SOFAS.



116,851 ALONZO D. McMASTER.
HINGES FOR GATES, &c.



EDWARD MERRIMAN,
STEAM-PISTONS.
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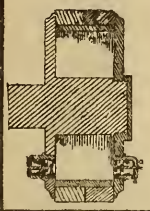

DAVID J. MOFFITT, WATER-GATES.
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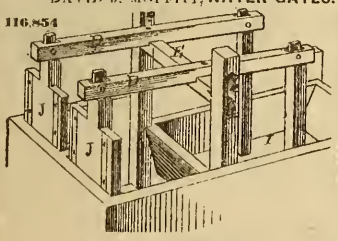

OSCAR F. MONFORT.
CHURNS.
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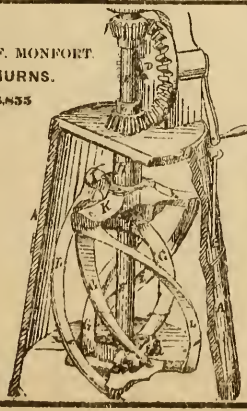

THOMAS W. MOORE, FOLDING CRADLES.
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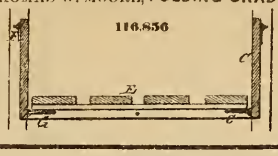

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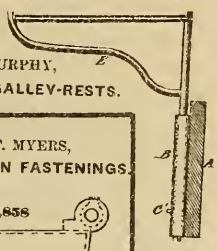
JOHN M. MURPHY,
PRINTERS' GALLEY-RESTS.



DANIEL F. MYERS,
WATCH-CHAIN FASTENINGS.
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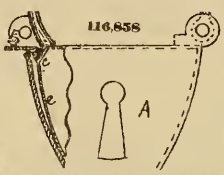

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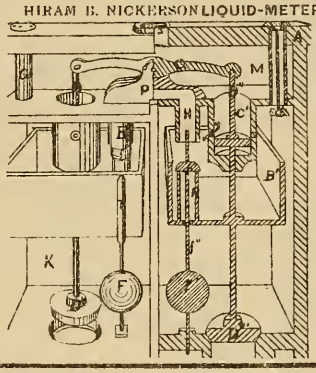
HIRAM B. NICKERSON LIQUID-METERS



JAMES NORMAN,
TASSEL
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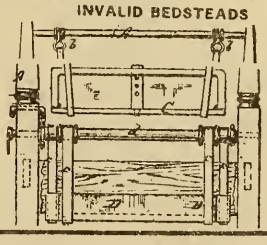
116,861 MANSEL A. ORMSBEE,
INVALID BEDSTEADS



GEORGE W. PEIRCE,
BRACKETS.
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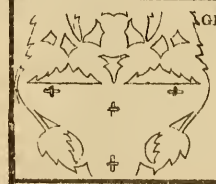

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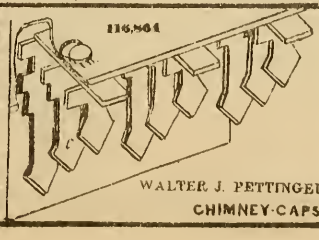
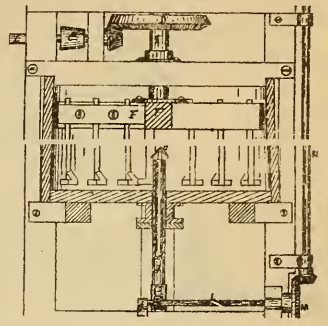


WALTER J. PETTINGELL.
CHIMNEY-CAPS.

116,865 IRA M. PHELPS.
AMALGAMATING GOLD AND SILVER.



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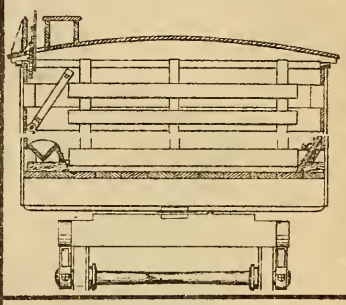
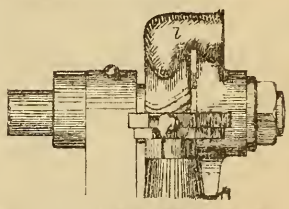


116,867 TIMOTHY K. REED,
TRIMMING AND BURNISHING-MACHINES.



ROBERT RENZ AND ANDREW RENZ
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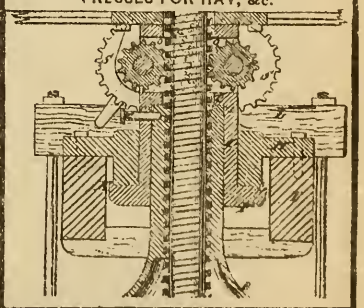
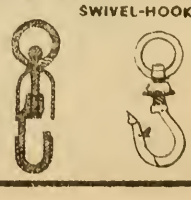
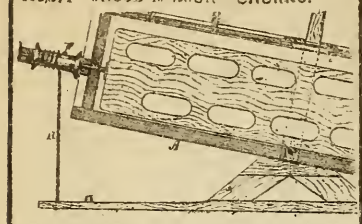
116,869 WILLIAM HENRY REYNOLDS,
PRESSES FOR HAY, &c.



116,870 CELIUS E RICHARDS
SWIVEL-HOOKS.



116,871 JACOB L. RUST, CHURNS.



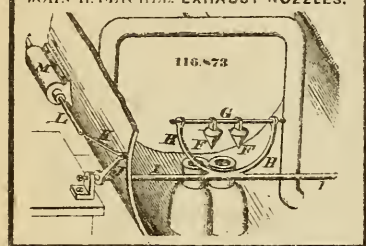
FRANÇOIS SENN,

POOTS AND SHOES.

116,872

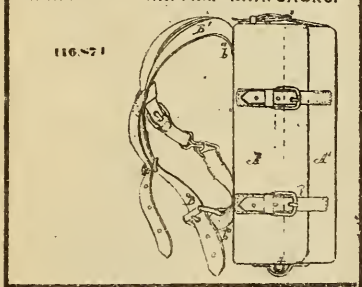
JOHN H. SETCHEL, EXHAUST-NOZZLES.

116,873



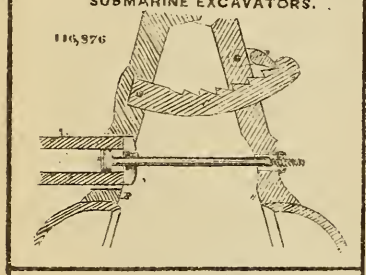
CHARLES W. SCHAEFER, KNAPSACKS.

116,874



GEORGE V. SHEFFIELD,
SUBMARINE EXCAVATORS.

116,876



IRA SHEPARD,
SAWING-MACHINES
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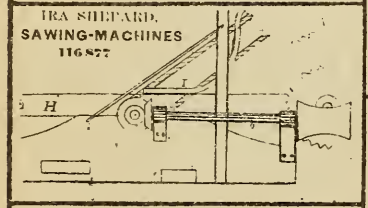
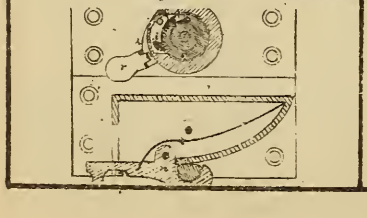
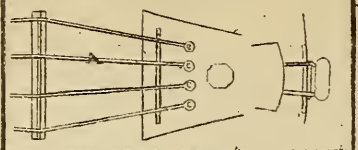


SMILEY AND LOUGHEAD,
116,878 FASTENERS FOR SASHES.

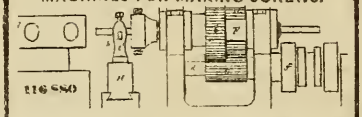


116,879 KILBURN SMITH,
MUSICAL INSTRUMENTS.

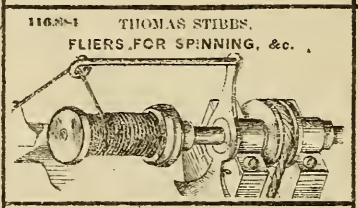


SOUTHWORTH, AND CUSHING,
MACHINES FOR MAKING SCREWS.

116,880



116,881 THOMAS STIBBS,
FLIERS FOR SPINNING, &c.



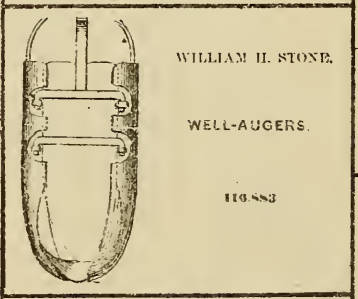
G. C. STILLSON,
LADIES'
ELASTIC SUPPORTERS.

116,882

WILLIAM H. STONE,

WELL-AUGERS.

116,883



ISAAC N. SWASEY,
MEMORANDUM-BOOKS
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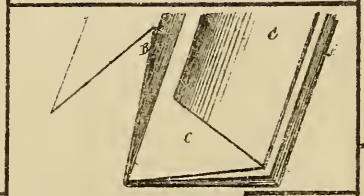

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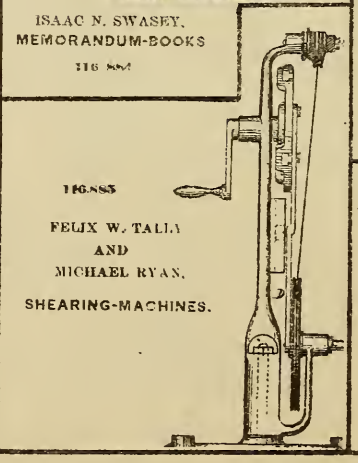
FELIX W. TALLY
AND
MICHAEL RYAN,

SHEARING-MACHINES.



GEORGE G. THOMAS,
CHIMNEY-COWLS.

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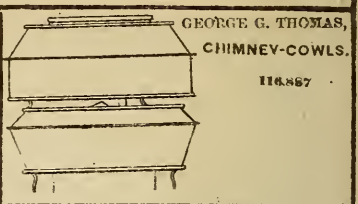
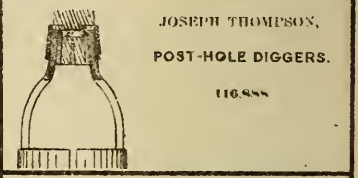


JOSEPH THOMPSON,

POST-HOLE DIGGERS.

116,888



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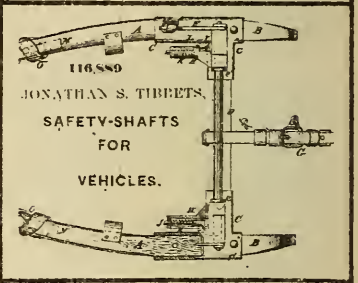
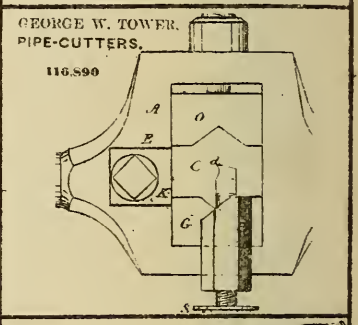
JONATHAN S. TIBBETS,
SAFETY-SHAFTS
FOR
VEHICLES.



GEORGE W. TOWER,
PIPE-CUTTERS.

116,890



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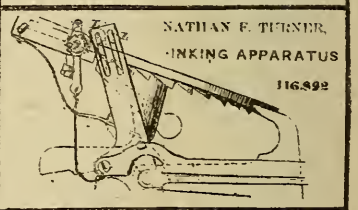
MORTON TOWER,

CAR BASKET-RACKS.

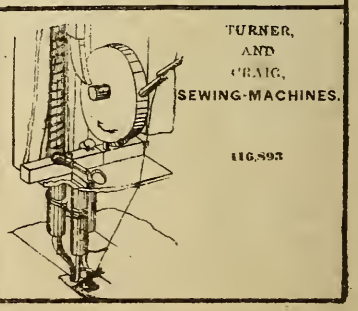
NATHAN F. TURNER,
INKING APPARATUS

116,892

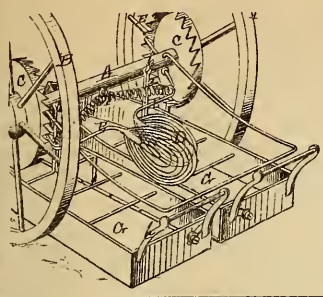


TURNER,
AND
CRAIG,
SEWING-MACHINES.

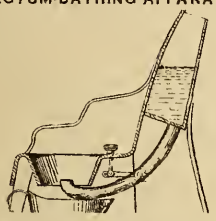
116,893



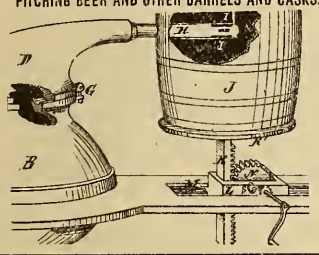
116,894 JOHN B. TURNEY,
POTATO-BUG DESTROYERS.



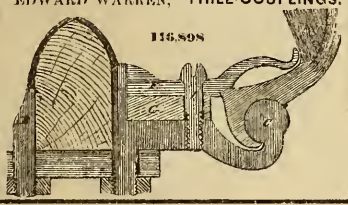
116,895 CORNELIOUS B. VERONEE,
RECTUM-BATHING APPARATUS.



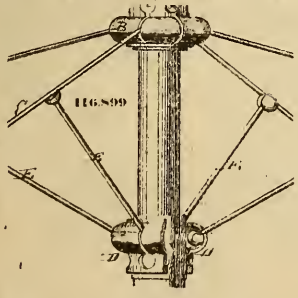
116,896 WILLIAM VOGT,
PITCHING BEER AND OTHER BARRELS AND CASKS.

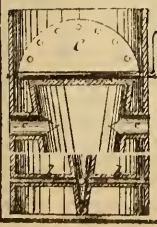


EDWARD WARREN, THILL-COUPLINGS.
116,898



WALTER WATSON, UMBRELLAS.
116,899





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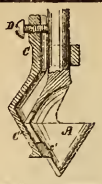
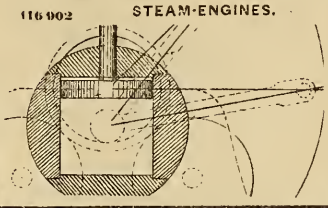
BENJAMIN WEBSTER,
STOVE-PIPE DRUMS.

ASA WHEELER.
GAUGES FOR COUNTERSINKS.
116,901



JAMES DAVENPORT WHELPLEY.
116,902 STEAM-ENGINES.



WHELPLEY AND STORER TREATMENT OF ORES
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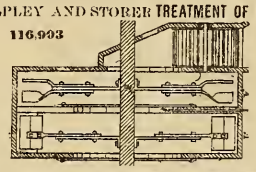
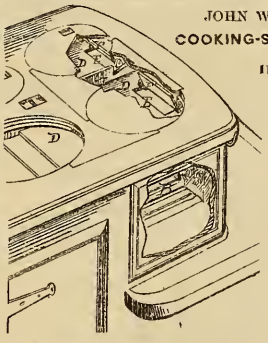


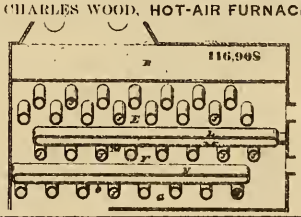
SIMON WIENER,
HARNESS-TRIMMINGS.
116,904

JOHN WILDER,
COOKING-STOVES.
116,905

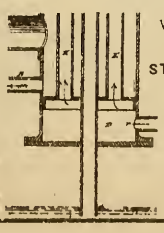


JOHN THEOPHILUS WILLIAMS, 116,907
LOCKS FOR DOORS, &c.

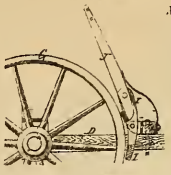
CHARLES WOOD, HOT-AIR FURNACES.
116,908



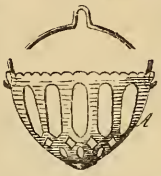
WILLIAM WRIGHT,
STEAM CONDENSERS.
116,909



JOSEPH J. ADGATE.
WAGON-BRAKES.
116,910

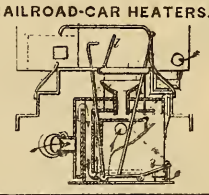


JOHN ADT,
TWINE-HOLDERS.
116,911

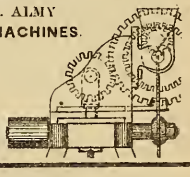


JOHN P. ALLEN AND HENRY CROFT,
WATCH-KEY, SWIVEL, AND HOOK.
116,913

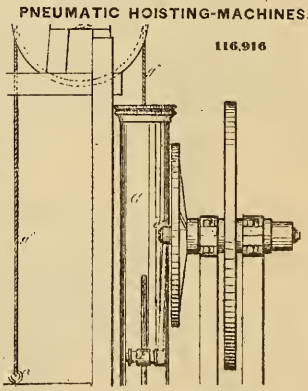
116,914 JOSHUA G. ALLEN.
RAILROAD-CAR HEATERS.



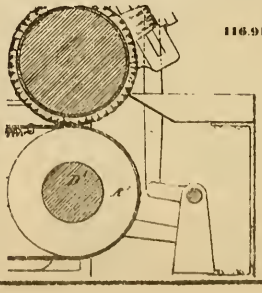
116,915 GEORGE F. ALMY
SPOKE-SAWING MACHINES.



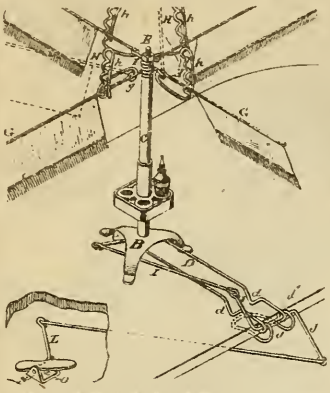
ANDERSON AND HARLAN,
PNEUMATIC HOISTING-MACHINES.
116,916



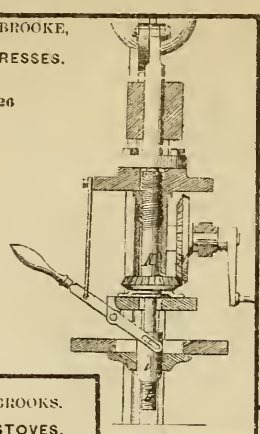
EDWARD F. BENTON,
BRONZING-MACHINE
116,918



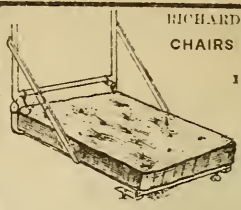
RINKARD AND BOAL, 116,919
FAN ATTACHMENTS FOR TABLES.



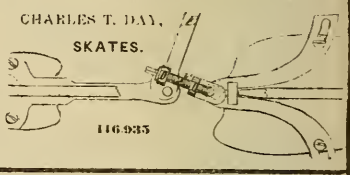
ARIES P. BROOKE,
GLASS-PRESSES.
116,926



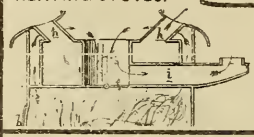
RICHARD H. CUTTER,
CHAIRS FOR BOATS.
116,934



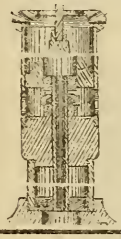
CHARLES T. DAY,
SKATES.
116,935



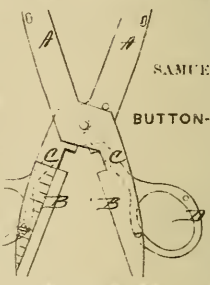
LORIN A. BROOKS.
HEATING-STOVES.
116,927



HIRAM BISSELL.
DRAIN-PIPE MACHINES.
116,920



116,936
SAMUEL W. EASTREN,
BUTTON-HOLE CUTTER



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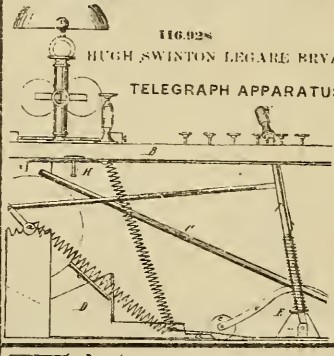
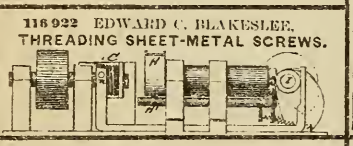
HUGH SWINTON LEGARE BRYAN,
TELEGRAPH APPARATUS.



LYMAN R. BLAKE,
CHANNELING SOLES
FOR BOOTS
116,921

116,922 EDWARD C. BLAKESLEE,
THREADING SHEET-METAL SCREWS.



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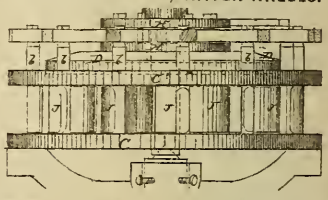
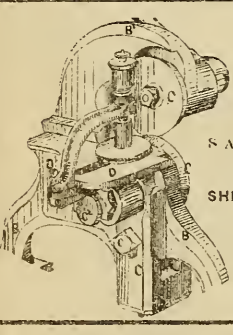
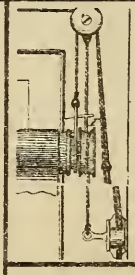
DANIEL EHRHART, WATER-WHEELS.



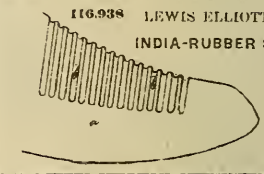
S. A. BOSTWICK,
CUTTING
SHEET METAL.
116,923



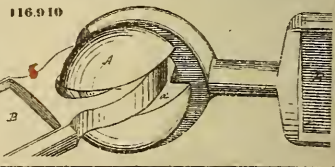
CHAUNCEY BUCKLEY,
CURTAIN-FIXTURES.
116,929



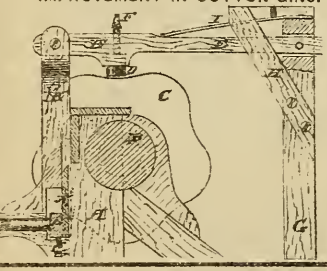
116,938 LEWIS ELLIOTT, JR.,
INDIA-RUBBER SHOES.



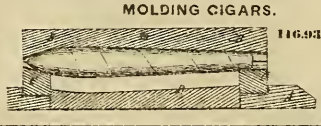
JOSEPH F. EMMERT, SHAFT-COUPLINGS.
116,910



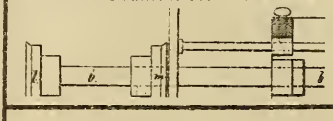
116,924 WILLIAM F. BOWEN,
IMPROVEMENT IN COTTON-GINS.



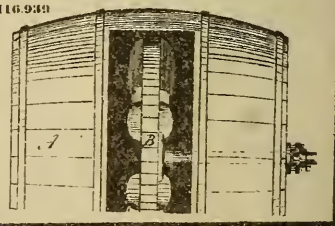
JOHN CHARTER,
MOLDING CIGARS.
116,930



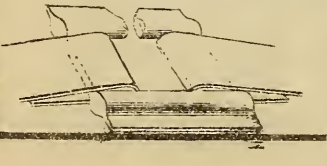
116,931 JONAH R. COLE,
SEAMING CYLINDRICAL TIN BOXES.



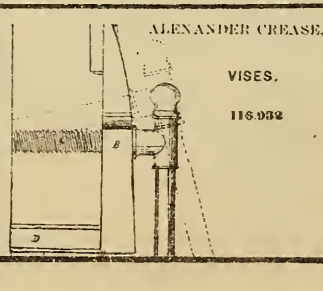
FRANCIS MARION ENGLISH, CHURNS.
116,939



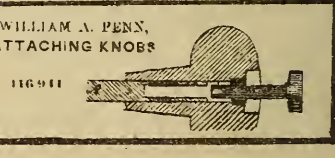
116,925 GEORGE BRODIE,
BANDS OR HOOPS USED IN BALING COTTON.



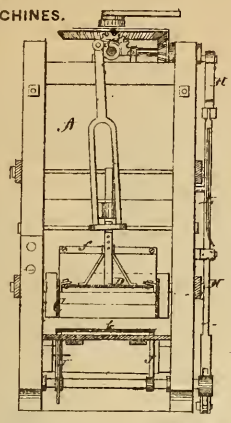
ALEXANDER CREASE,
VISES.
116,932



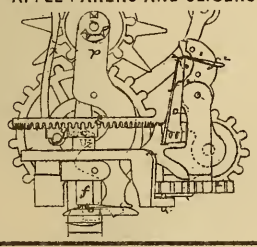
WILLIAM A. PENN,
ATTACHING KNOBS
116,941



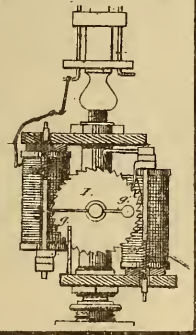
FERGUSON, RALSTON, AND HILDRETH
BRICK-MACHINES.
116,942



116,943 CALVIN A. FOSTER,
APPLE-PARERS AND SLICERS.



116,944 SAMUEL GARDINER,
ELECTRO-MAGNETIC APPARATUS.



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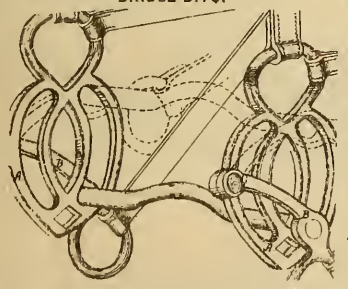
BRIDLE-BITS.



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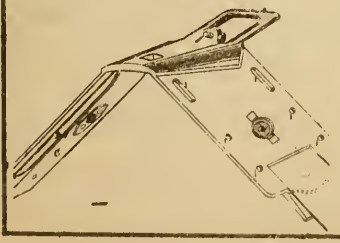
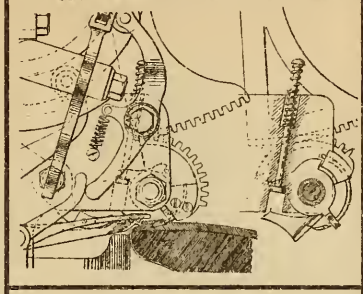
HARNESS-SADDLES.

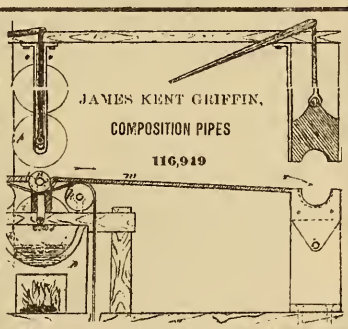


116,947 CHARLES GOODYEAR, JR.
SEWING-MACHINES FOR BOOTS



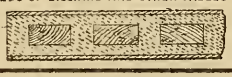
116,948 SOLOMON S. GRAY,
PAPER COLLARS.

JAMES KENT GRIFFIN,
COMPOSITION PIPES
116,949

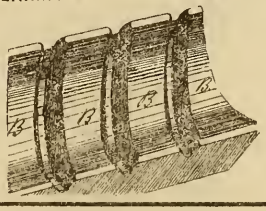


116,950 LOUIS A. GRILL,
BILLIARD-TABLES.

116,951 LOUIS A. GRILL,
BEDS OF BILLIARD AND OTHER TABLES

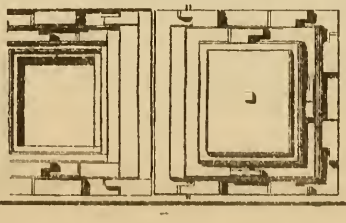


116,952 HENRY GROGAN,
BEARINGS FOR JOURNAL-BOXES.

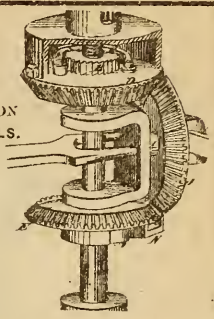


116,953 JOHN W. HAINES,
REFLECTORS FOR LAMPS.

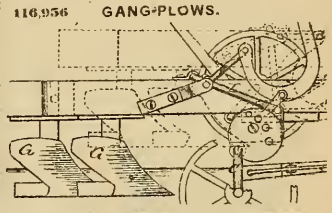
116,954 EDWARD K. HALL,
BURGLAR-PROOF SAFES.



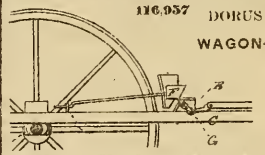
116,955
IRA S. HAMILTON
RATCHET-DRILLS.



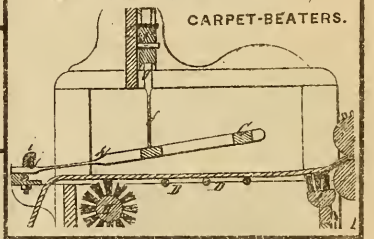
WILLIAM HAY AND THOMAS B. FREEMAN,
116,956 GANG-PLOWS.



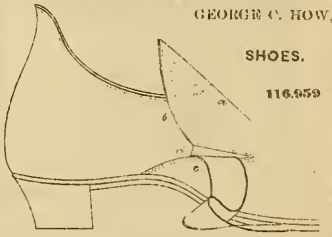
116,957 DORUS HEALY,
WAGON-BRAKES.



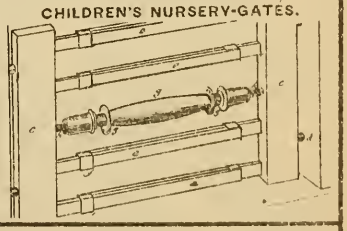
116,958 HOTHERSALL AND BANKS,
CARPET-BEATERS.



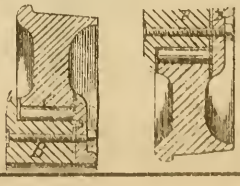
GEORGE C. HOW,
SHOES.
116,959



116,960 EUGENE HOWARD,
CHILDREN'S NURSERY-GATES.



116,961 LEWIS B. HUNT, CAR-WHEELS.



116,962 ALBERT L. IDE,
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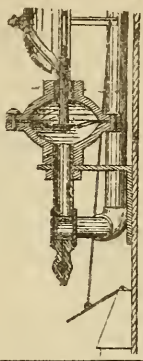

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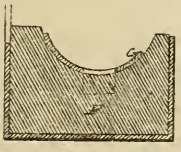
THILL-COUPLINGS.



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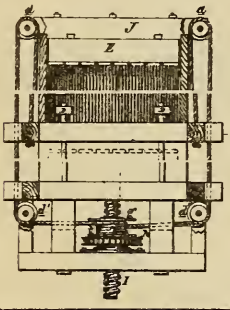
116,965 DAVID KNOWLES,
HAY AND COTTON-PRESSES.



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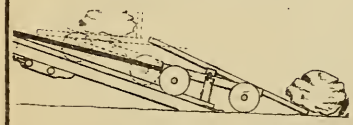

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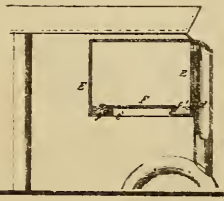

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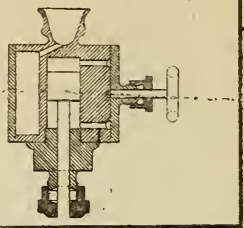
STEAM-ENGINE GOVERNORS.



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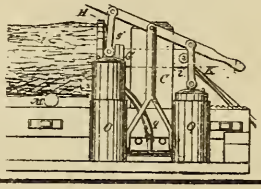
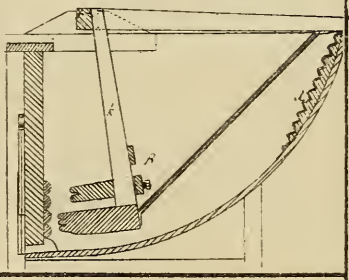
SEASONING WOOD.



116,970 ROBERT GILMOUR LECKIE,
MANUFACTURE OF SALT.

116,971 WILLIAM LEWIS,
WASHING-MACHINES.



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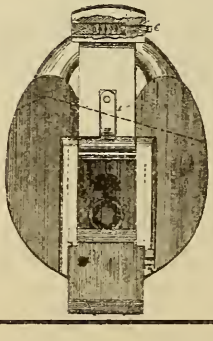

116,973 AUSTIN S. MANN,
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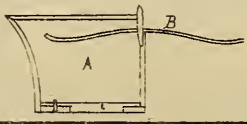

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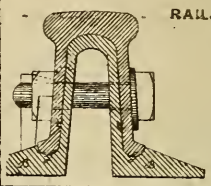
116,975 ALMERON McKENNEY,
RAILROAD RAILS.



116,977 JAMES H. McWILLIAMS,
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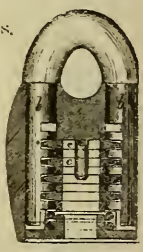
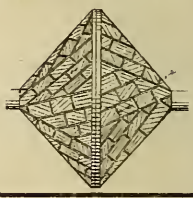
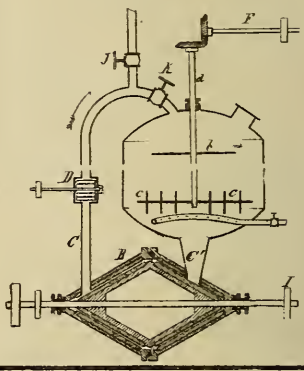


116,978 HARRISON B. MEECH,
PAPER-PULP ENGINES.



116,980 HARRISON B. MEECH,
MANUFACTURE OF PAPER-PULP.



116,981 CHARLES K. MITCHELL,
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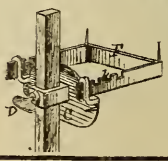
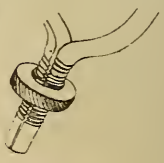


116,982 JAMES L. MOORE,
WATCH-KEYS.



116,984 THOMAS H. MOTT,
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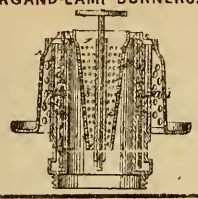

116,985 FRANKLIN MUZZY,
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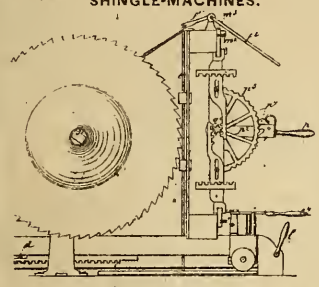
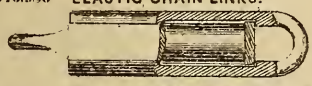
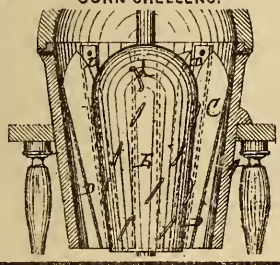


EPHRAIM MYERS.
116,986 ELASTIC CHAIN-LINKS.



O'CONNOR AND O'CONNOR,
116,987 CORN-SHELLERS.



116,988 OLIVER A. OLMSTED,
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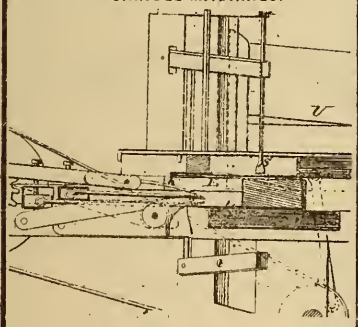

PRESTON C. PEARSON FENCES.
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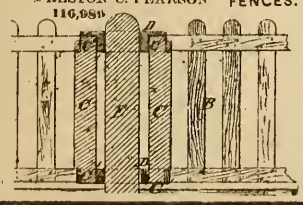
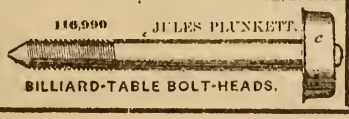


116,990 JULES PLUNKETT.



BILLIARD-TABLE BOLT-HEADS.

116,991 ROLAND RAKESTRAW
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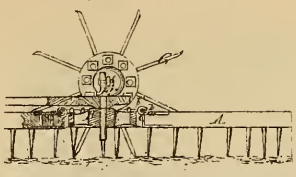

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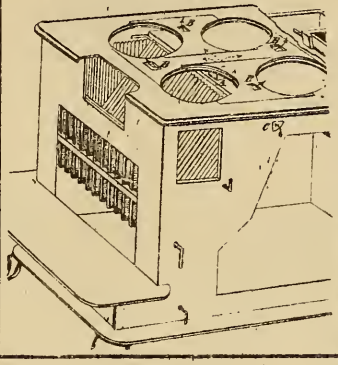
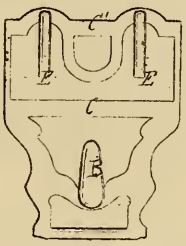


116,993 SAMUEL REYNOLDS.
BACKBAND-HOOKS FOR HARNESS.



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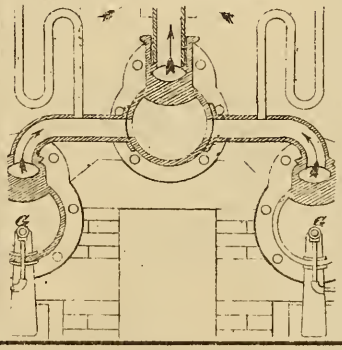

RANDOLPH E. SABIN,
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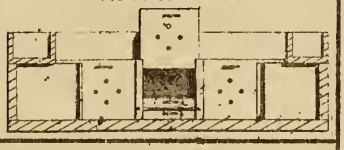

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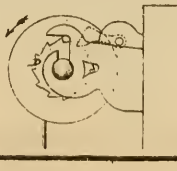
CURTAIN-FIXTURES.



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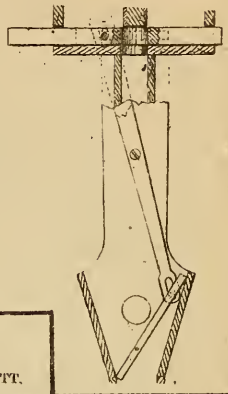
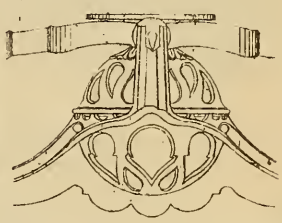
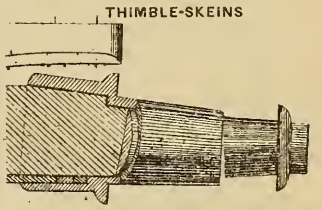
SEED-TUBES FOR CORN-PLANTERS.



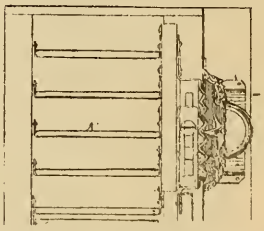
116,999
GEORGE SCOTT.
WEIGHING-SCALES.



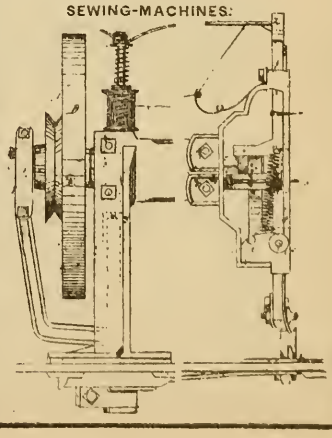
117,000 ALBERT L. SHEARS.
THIMBLE-SKEINS



117,001 SEELEY M. SHERMAN,
WINDOW-BLINDS.

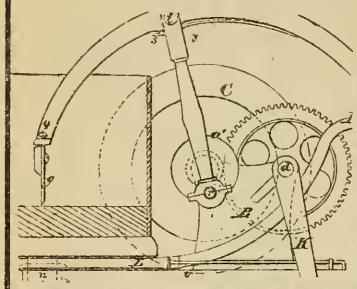


JOHN P. SHERWOOD, 117,002
SEWING-MACHINES.



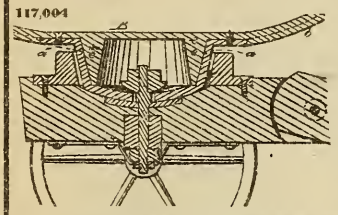
117,003 ALBERT R. SILVER.

VEGETABLE-CUTTERS.



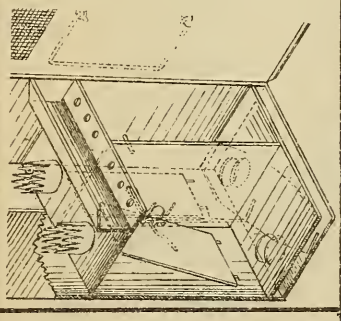
JACOB SKEEN, IN WAGONS.

117,004



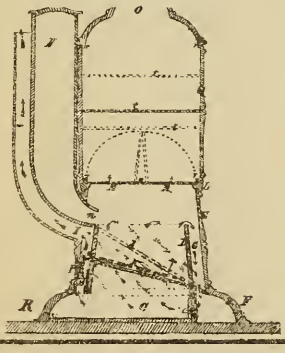
BARTON C. SMITH ANIMAL-TRAPS.

117,005



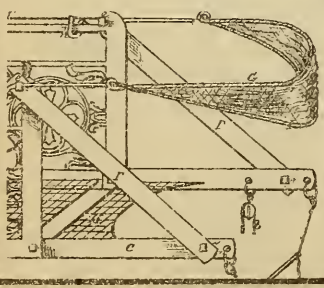
DAVID SMITH, BASE-BURNING STOVES.

117,006



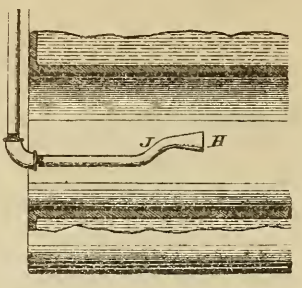
SMITH AND BURROWS. FIRE-ESCAPES.

117,007



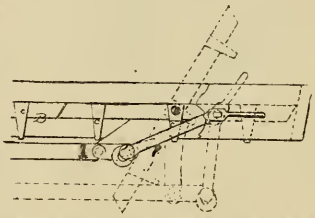
117,008 CHARLES H. STEBBINS

STEAM-BOILER-FLUE CLEANERS.



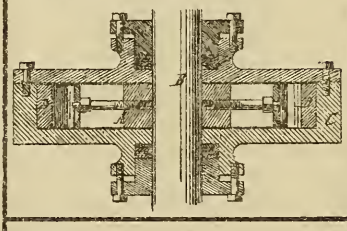
ELIJAH F. STEELE.

117,009 FURNACE-GRATES.



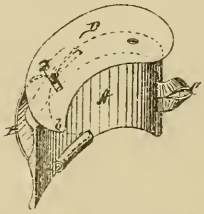
JOSEPH STEGER,

117,010 FRICTION-PULLEYS.



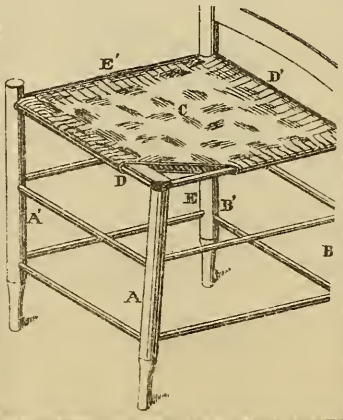
117,011 STENGEL, AND DAVEY,

CORN-HUSKERS.



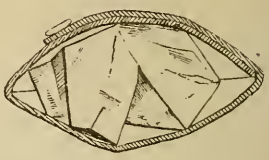
VOLNEY STOCKTON,

117,012 KNOCK-DOWN CHAIRS.



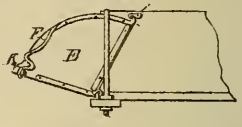
SAMUEL STROOCK.

117,013 ICE-BAGS.



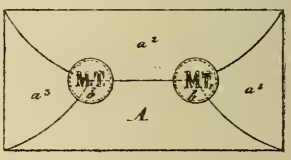
117,014 JEREMIAH L. STROPES,

END-GATES FOR WAGONS.



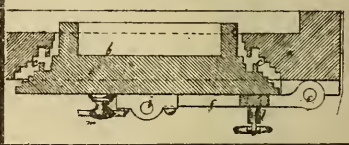
117,015 MARTIN TAYLOR,

ENVELOPES.



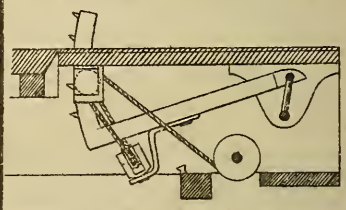
117,016 WILLIAM TERWILLIGER,

SAFE-DOORS.



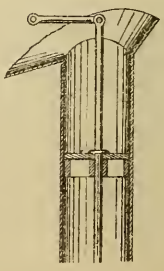
117,017 JOHN TORRENT,

MACHINES FOR ROLLING LOGS.



THOMAS JEFFERSON TRAPP,

117,019 DEEP-WELL PUMPS.



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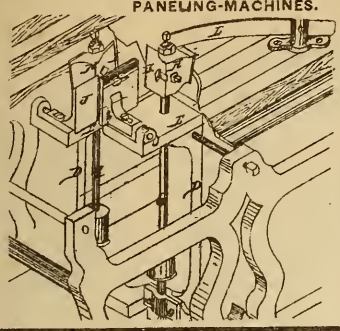

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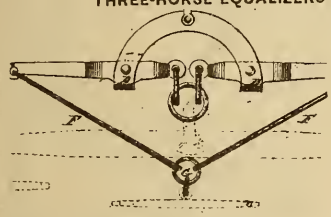
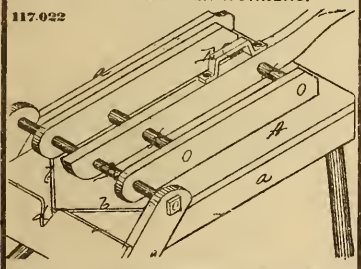
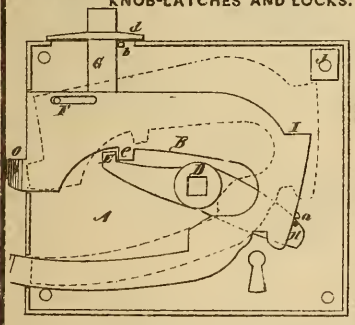


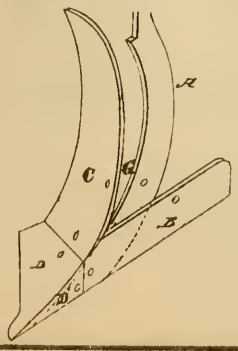
WILLIAM WEAVER,
BUTTER-WORKERS.
117,022



117,023 SHEPHERD H. WHEELER,
KNOB-LATCHES AND LOCKS.



EDWARD WIARD, PLOWS.
117,024



117,025 WIER AND WIER,
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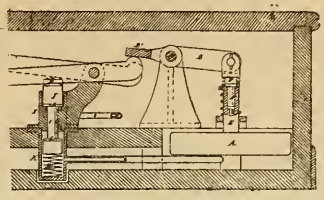
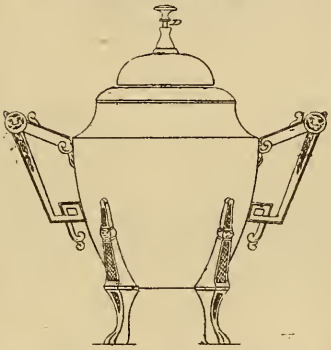


117,026 HORACE C. WILCOX,
ARTICLES FOR TABLE-SERVICE.



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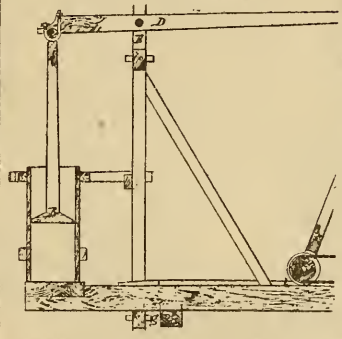
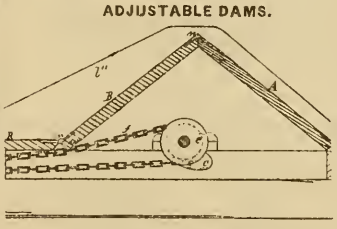
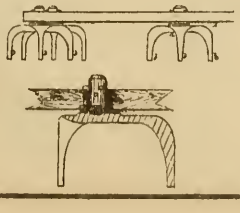
URIAH T. WILSON,
COTTON-PRESSES.



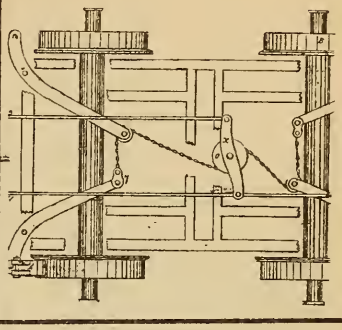
117,028 JOHN A. WOOD,
ADJUSTABLE DAMS.



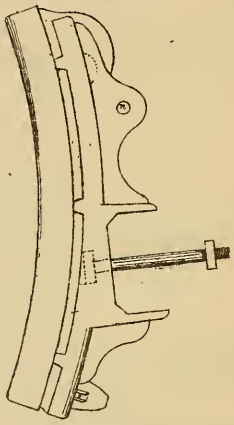
4,464 JOHN F. CHASE,
HARROW-TEETH.



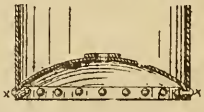
DUNHAM, AND WIDNEY,
4,465 CAR-BRAKES.



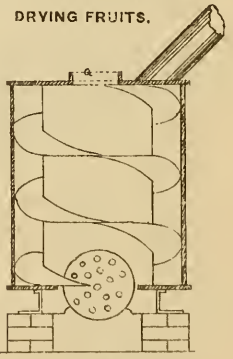
DUNHAM, AND WIDNEY, 4,466
CAR-BRAKE SHOES.



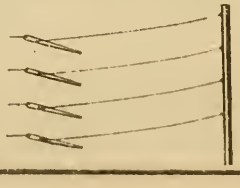
4,467 WILLIAM B. SCAIFE,
BOILERS FOR RANGES, STOVES, &c.



4,468 FRANCIS H. SMITH,
DRYING FRUITS.



4,469 THERON G. YEOMANS,
GRAPE AND VINE-TRELLISES.



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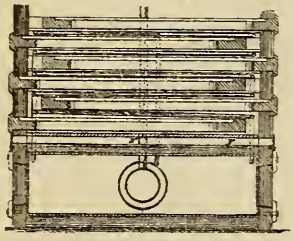
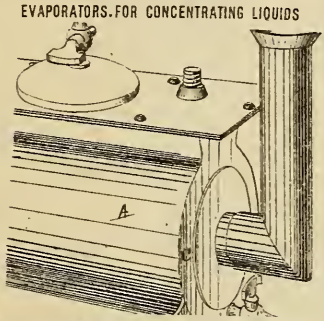
JULY 18, 1871.

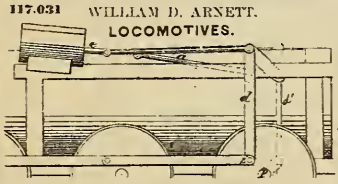
117029 JUDSON ALLEN.
FRUIT-DRIERS.



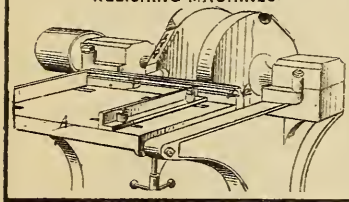
117030 ALBERT J. ANDREWS.
EVAPORATORS FOR CONCENTRATING LIQUIDS



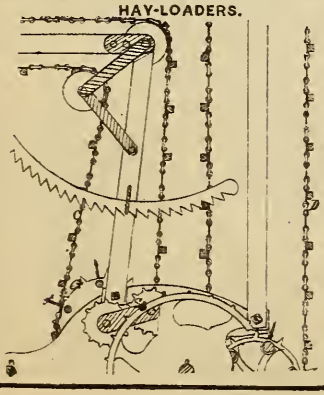
117031 WILLIAM D. ARNETT.
LOCOMOTIVES.



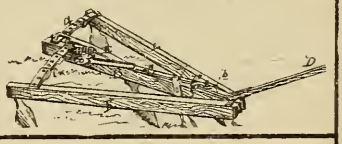
117032 DAVID G. ARNOLD.
RELISHING-MACHINES.



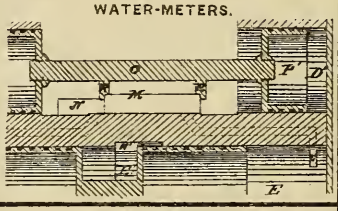
117033 HORACE BAKER.
HAY-LOADERS.



117034 PHINEAS ORLANDO BALDWIN.
CULTIVATORS.



117035 JOHN S. BARDEN.
WATER-METERS.



117036 BENJAMIN BARSTOW.
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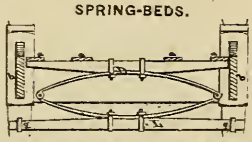
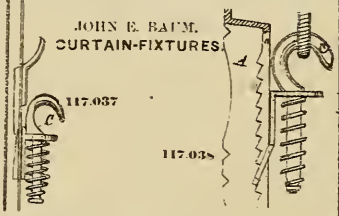


JOHN E. BATM.
CURTAIN-FIXTURES.

117037



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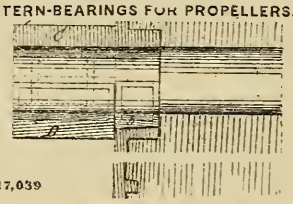
JAMES BOILES.
STERN-BEARINGS FOR PROPELLERS.



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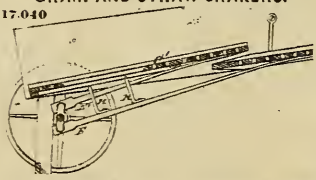
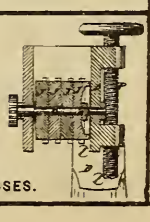
WILLIAM H. AND PETER BOTT
GRAIN-AND-STRAW SHAKERS.

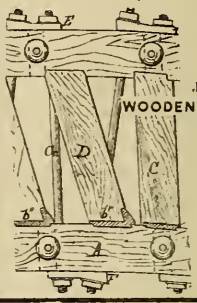
117040



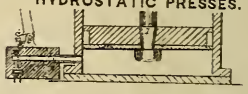


117041 ORVILLE M. BROCK,
SIDER-MILLS AND PRESSES.

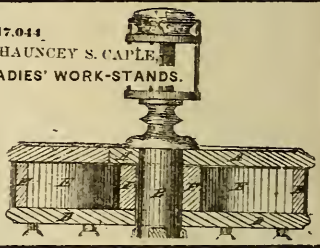
117042 JOSEPH BURKE,
WOODEN TRUSS-BRIDGES.



117043 JOHN T. BURR.
HYDROSTATIC PRESSES.

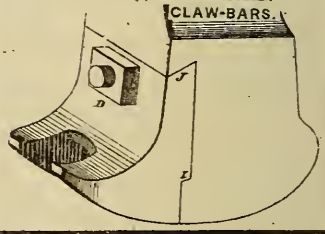


117044 CHAUNCEY S. CAPLE.
LADIES' WORK-STANDS.



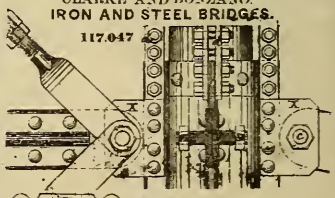
117045 WILLIAM CHAPMAN.
PORTABLE WATER-CLOSETS.

117046 DAVID CHRISTIE.
CLAW-BARS.



CLARKE AND BONZANO.
IRON AND STEEL BRIDGES.

117047



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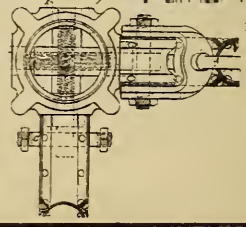
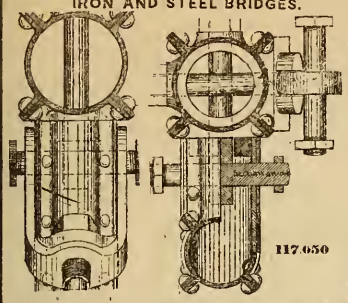
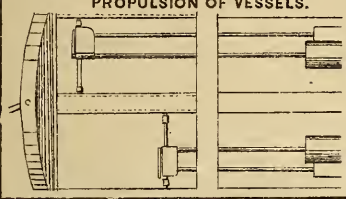


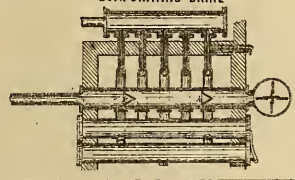
117,049 CLARKE AND BONZANO.
IRON AND STEEL BRIDGES.



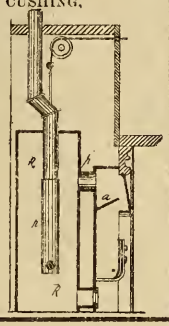
117,051 KEYES P. COOL,
PROPULSION OF VESSELS.



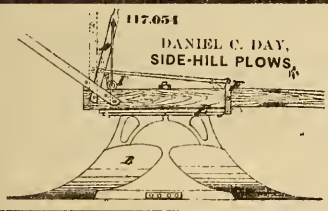
117,052 LEFFERT R. CORNELL.
EVAPORATING BRINE



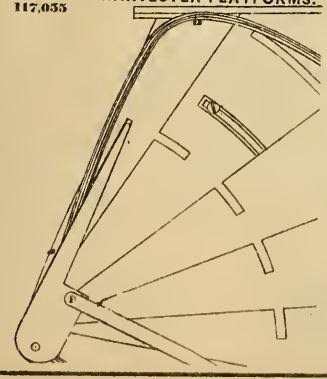
MARK ANTHONY CUSHING,
FIRE-PLACES.
117,053



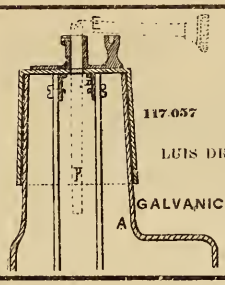
117,054
DANIEL C. DAY,
SIDE-HILL PLOWS.



GEORGE B. DEARDORFF,
HARVESTER-PLATFORMS.
117,055

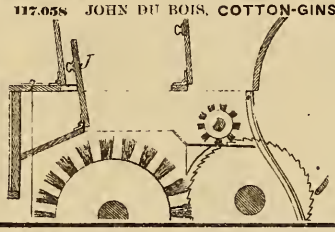


117,056
WILLIAM DONOGHUE.
RECLINING-CHAIRS.

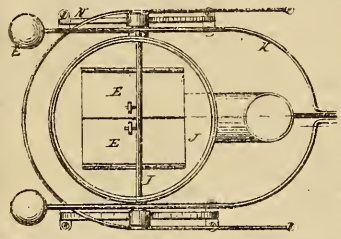


LUIS DRESCHER.
GALVANIC BATTERIES.

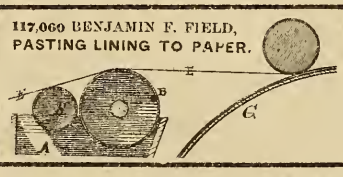
117,058 JOHN DU BOIS, COTTON-GINS.



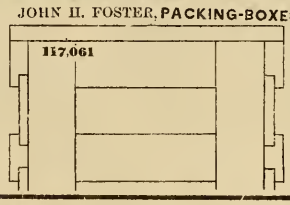
117,059 JULIEN T. EVENS,
RAILROAD-CAR STOVES.



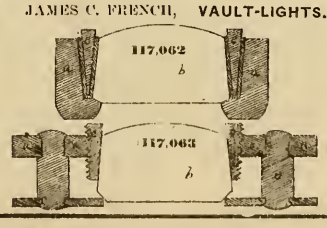
117,060 BENJAMIN F. FIELD,
PASTING LINING TO PAPER.



JOHN H. FOSTER, PACKING-BOXES.
117,061

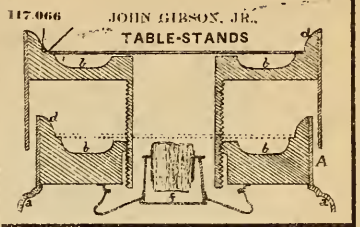


JAMES C. FRENCH, VAULT-LIGHTS.

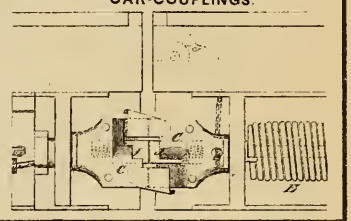


117,064 EDWARD L. GAYLORD,
KEYS FOR PADLOCKS.

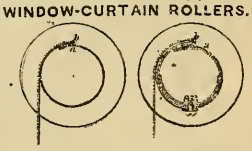
117,066 JOHN GIBSON, JR.,
TABLE-STANDS



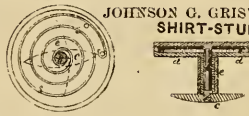
117,067 JOHN W. GILLAM,
CAR-COUPLINGS.



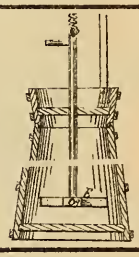
117,068 WILLIAM GORTON,
WINDOW-CURTAIN ROLLERS.



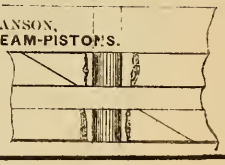
JOHNSON G. GRISWOLD,
SHIRT-STUDS.



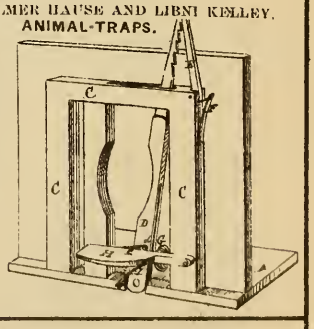
117,070
GEORGE GROOM,
CHURNS.



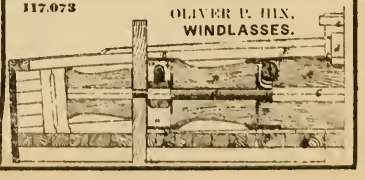
117,071
THOMAS HANSON,
PACKING STEAM-PISTONS.



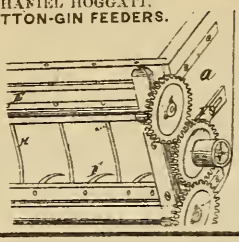
117,072
ELMER HAUSE AND LIBNI KELLEY,
ANIMAL-TRAPS.



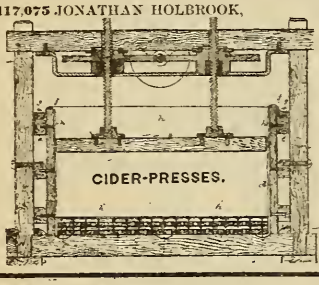
117,073 OLIVER P. HIX,
WINDLASSES.



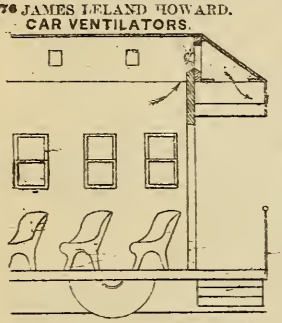
117,074 NATHANIEL HOGGATT, COTTON-GIN FEEDERS.



117,075 JONATHAN HOLBROOK, CIDER-PRESSES.

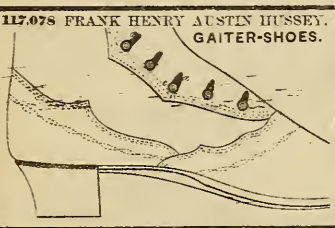


117,076 JAMES LELAND HOWARD, CAR VENTILATORS.



117,077 LUCIUS HUBBARD, IRON RIMS FOR WAGON-WHEELS.

117,078 FRANK HENRY AUSTIN HUSSEY, GAITER-SHOES.



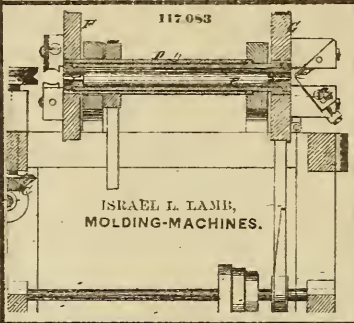
117,079 SAMUEL HUTCHINSON, HARROWS AND MARKERS

117,080 WILLARD C. JAMES, CONSTRUCTION OF DOORS.

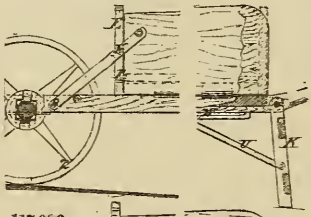
117,081 ANTHONY KEHL, PEG-SHARPENERS.

117,082 JOSEPH J. KRAUS, WOOD-BORING TOOLS.

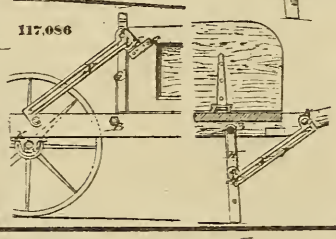
117,083 ISRAEL L. LAMB, MOLDING-MACHINES.



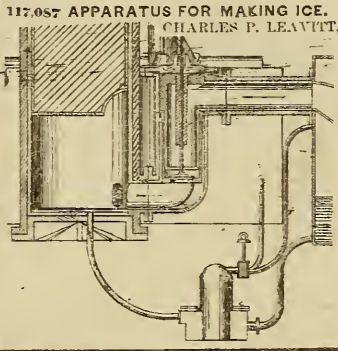
117,085 HARRY LAWRENCE WHEELBARROWS.



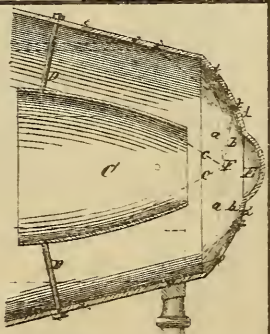
117,086



117,087 APPARATUS FOR MAKING ICE. CHARLES P. LEAVITT,

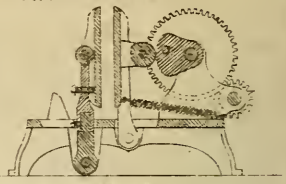


117,089

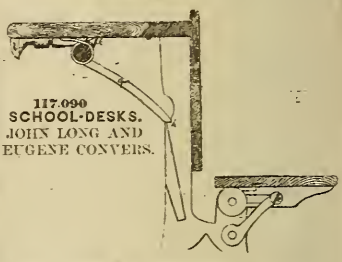


LEE AND BALDWIN, LOCOMOTIVE HEAD-LIGHTS.

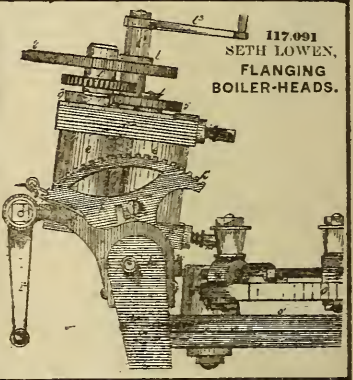
117,088 THOMAS LEAVITT, PRINTING-PRESSES.



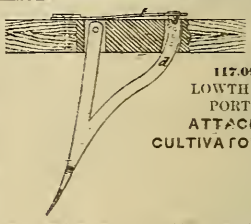
117,090 SCHOOL-DESKS. JOHN LONG AND EUGENE CONVERS.



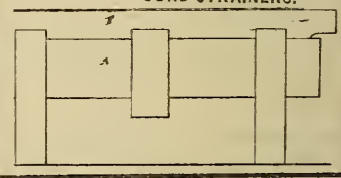
117,091 SETH LOWEN, FLANGING BOILER-HEADS.



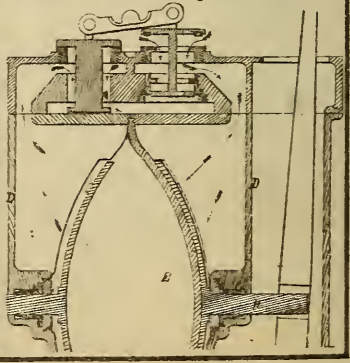
117,092 LOWTH AND PORTER, ATTACHING CULTIVATOR-TEETH



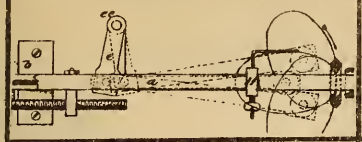
117,093 RALPH MASON AND SIDNEY MASON, CURD-STRAINERS.



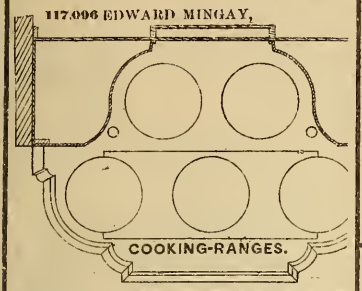
117,094 JOHN MEAD, LIQUID-METERS.



117,095 JULIUS MEINIG.
CUTTING OVAL TIN BOTTOMS.

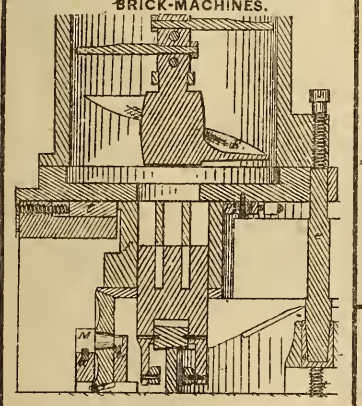


117,096 EDWARD MINGAY,

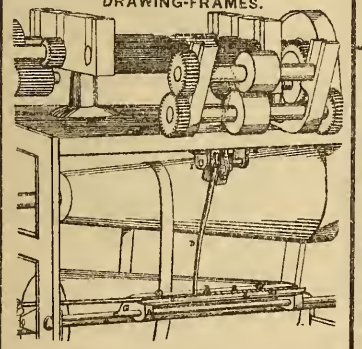


COOKING-RANGES.

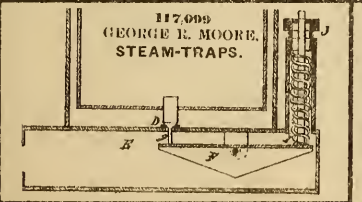
117,097 AUGUSTUS F. MITCHELL,
BRICK-MACHINES.



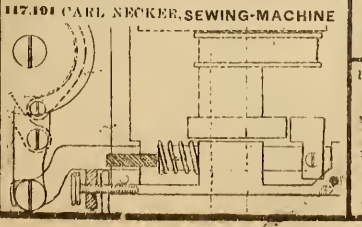
117,098 BENJAMIN MOON,
DRAWING-FRAMES.



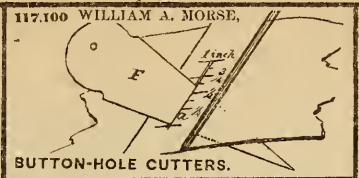
117,099
GEORGE R. MOORE,
STEAM-TRAPS.



117,101 CARL NECKER, SEWING-MACHINE

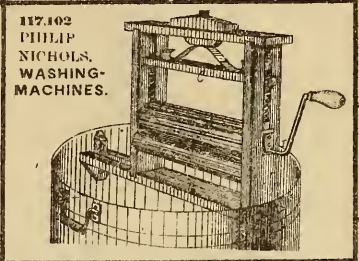


117,100 WILLIAM A. MORSE,

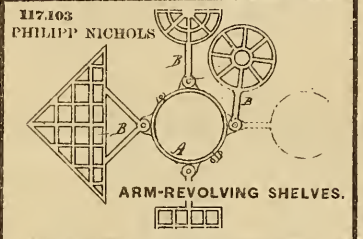


BUTTON-HOLE CUTTERS.

117,102
PHILIP
NICHOLS,
WASHING-
MACHINES.

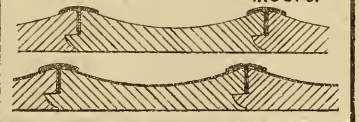


117,103
PHILIPP NICHOLS



ARM-REVOLVING SHELVES.

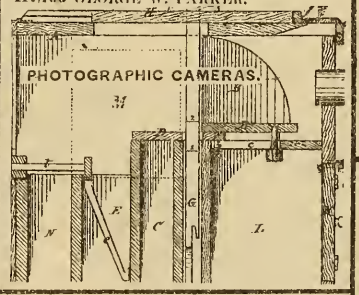
117,104 NELSON G. NORTHUP, ROOFS.



117,105 CHARLES MELSOM O'HARA,

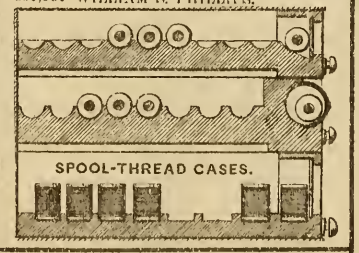
CORN-SHELLERS.

117,106 GEORGE W. PARKER,



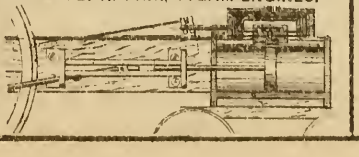
PHOTOGRAPHIC CAMERAS.

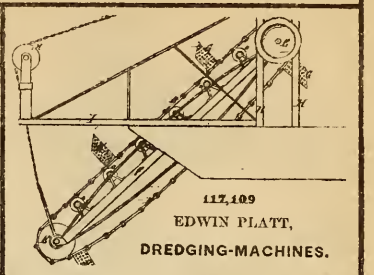
117,107 WILLIAM S. PHILLIPS,



SPOOL-THREAD CASES.

117,108 OZI M. PIKE, STEAM-ENGINES.

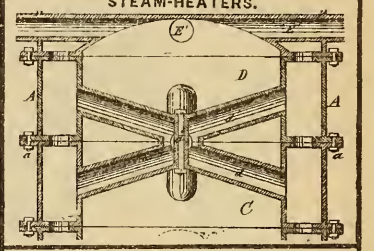




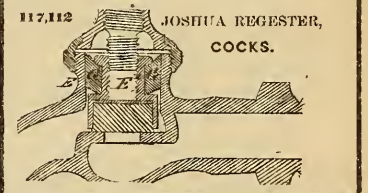
117,109
EDWIN PLATT,
DREDGING-MACHINES.

117,110 TITUS POWERS.
SHEET-METAL KEYS

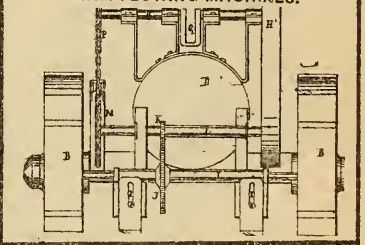
117,111 PULSIFER, AND WHEELER,
STEAM-HEATERS.



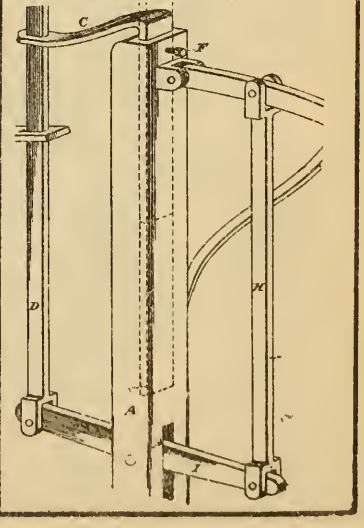
117,112 JOSHUA REGESTER,
COCKS.



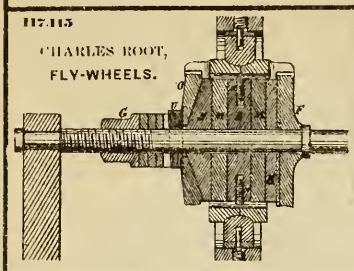
117,113 ZERAH RIDER,
STEAM PLOWING-MACHINES.



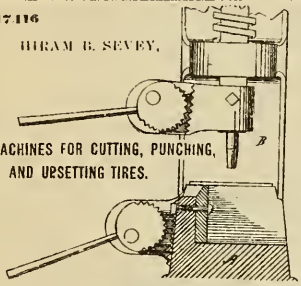
117,114 HENRY L. RIOUFF,
CARRIAGE-JACKS.



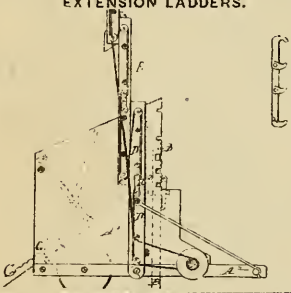
117,115 CHARLES ROOT, FLY-WHEELS.



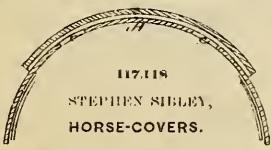
117,116 HIRAM B. SEVEY, MACHINES FOR CUTTING, PUNCHING, AND UPSETTING TIRES.



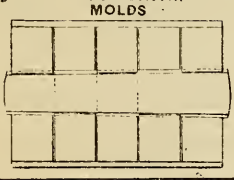
117,117 ELLIAH O. SHEPARDSON, EXTENSION LADDERS.



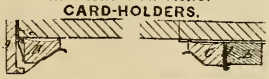
117,118 STEPHEN SIBLEY, HORSE-COVERS.



117,119 ISAAC SMITH, MOLDS

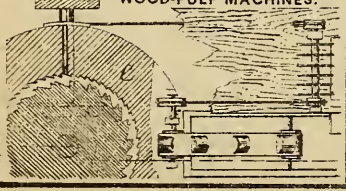


117,120 EDWARD STEWART, CARD-HOLDERS.

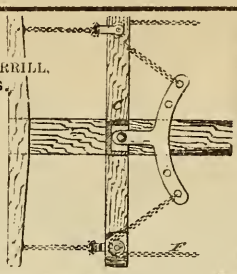


117,121 LEO CHARLY STRAUB, FRUIT-JARS.

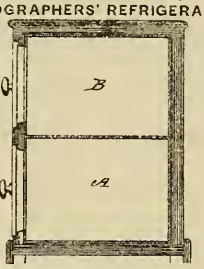
117,122 JAMES TAYLOR, WOOD-PULP MACHINES.



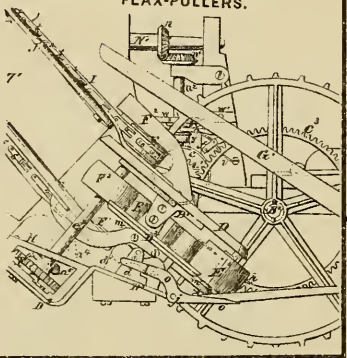
117,123 MARVIN TERRILL, EVENERS.



117,124 MARY A. THORNTON, PHOTOGRAPHERS' REFRIGERATORS.

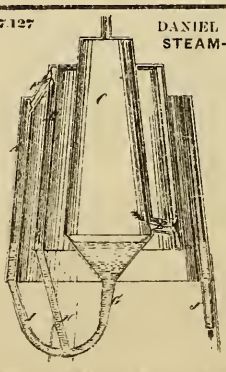


117,125 SAMUEL W. TYLER, FLAX-PULLERS.

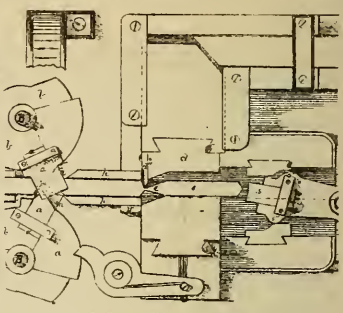


117,126 MINER VAN AUKEN, WASHING-MACHINES.

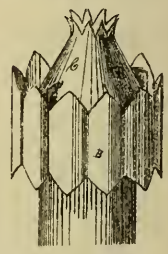
117,127 DANIEL VAUGHAN, STEAM-HEATERS.



117,128 OMAR A. WADSWORTH, MACHINES FOR MAKING SPIKES.

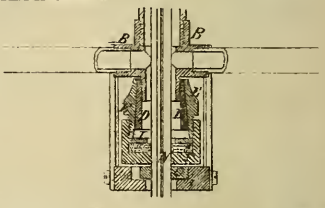


117,129 JOHN WALKER, CHIMNEY-COWLS.

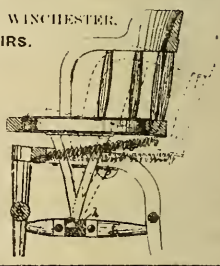


117,130 LEWIS WARD, GRIDDLE-GREASERS.

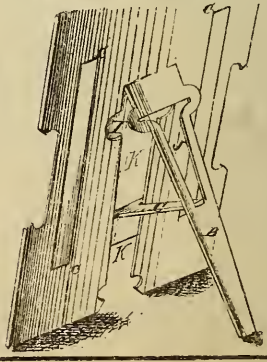
117,131 ROBERT F. WHITE, FIXTURES FOR CHANDELIERS.



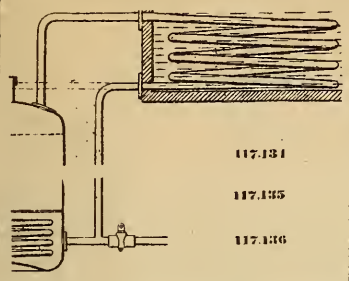
117,132 GEORGE C. WINCHESTER, CHAIRS.



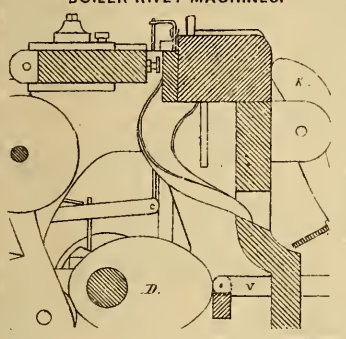
117,133 RUFUS WRIGHT, EASEL PICTURE-FRAMES.



WILLIAM ADAMSON. PAPER-STOCK.



117,137 CHARLES B. ALLEN.
BOILER-RIVET MACHINES.



LEONARD ATWOOD.
ELEVATORS FOR HODS.
117,138

JOSEPH H. ALLEN,
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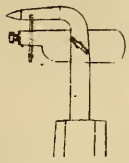
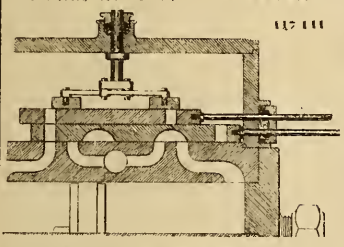
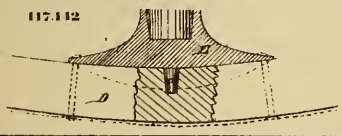
117,140



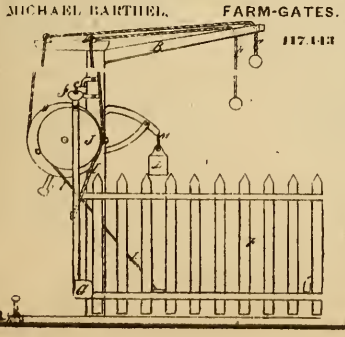
LEONARD ATWOOD. VALVE-GEARS
117,141



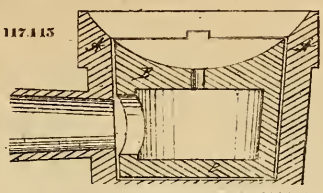
JAMES R. BAIRD, WHEELS FOR VEHICLES.
117,142



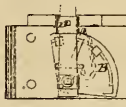
MICHAEL BARTHEL. FARM-GATES.
117,143



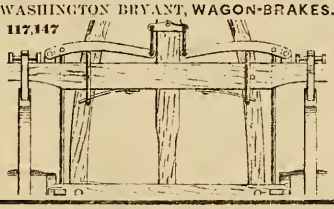
JOHN BAUER. BLACKSMITHS' TUYERES.
117,145



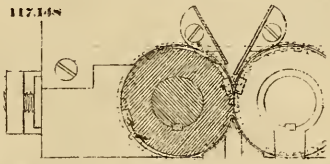
SHELDON S. BEEMAN,
STANDARDS FOR RAILWAY CARS.
117,146



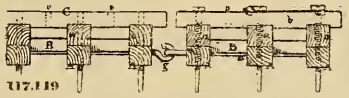
WASHINGTON BRYANT, WAGON-BRAKES.
117,147



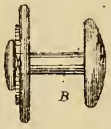
ALEXANDER H. CARYL,
MANUFACTURE OF HORSESHOE NAILS
117,148



JOSEPH CHELLEW. HARROWS.



117,149



EDWARD A. COBB,
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117,150

GEORGE P. COLE,
COLLAR-PADS.
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COLTON AND BABCOCK,
ATTACHMENTS FOR SEWING-MACHINES.
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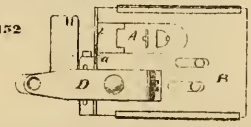
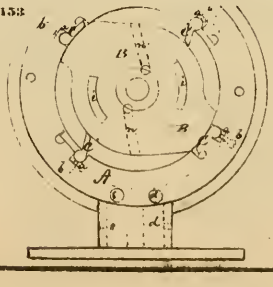
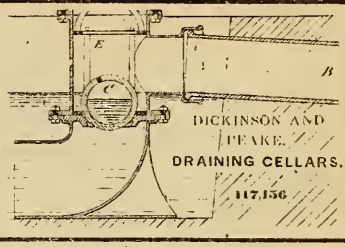


JAMES M. CONKLE. ROTARY ENGINES.
117,153

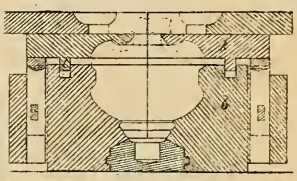


AMBROSE M. CUSHING. WASH-TUBS.



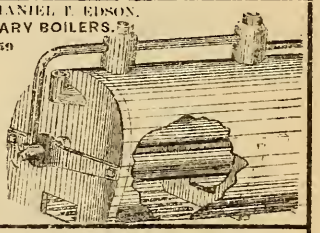
DICKINSON AND PEAKE.
DRAINING CELLARS.
117,156

117,157 HIRAM DILLAWAY,
MOLDS FOR GLASS LAMPS.

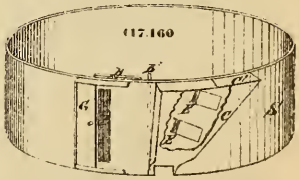


THOMAS DOLAN.
NUBIAS.
117,158

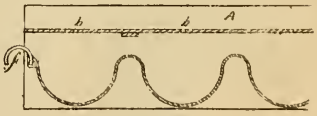
NATHANIEL F. EDSON.
ROTARY BOILERS.
117,159



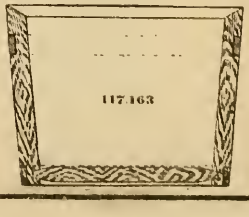
GEORGE W. EGGLESTON.
MILLSTONE-CURBS.
117,160



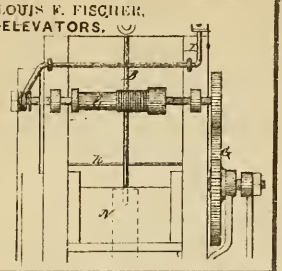
117,162 GEORGE F. EVANS.
APPARATUS FOR SAVING GOLD.



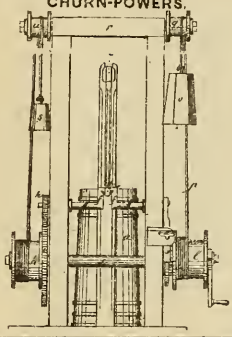
EDWIN AUGUSTUS FIRBY. TUBS, &c.



117,164 LOUIS F. FISCHER, WATER-ELEVATORS.

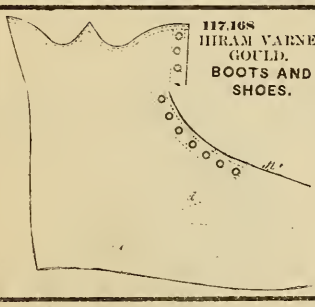


117,166 BENJAMIN F. FRAMPTON, CHURN-POWERS.

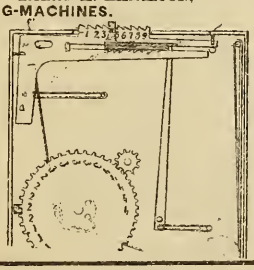


117,167 GIBSON AND DE HAAS, SCRUBBING-BRUSHES.

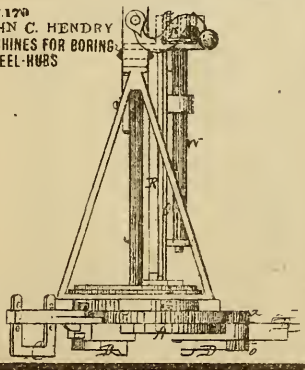
117,168 HIRAM VARNEY GOULD. BOOTS AND SHOES.



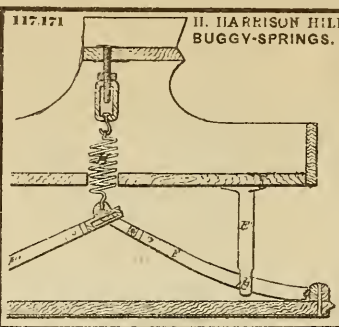
117,169 EMERY M. HAMILTON, ADDING-MACHINES.



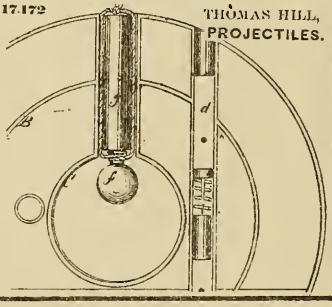
117,170 JOHN C. HENDRY MACHINES FOR BORING WHEEL-HUBS



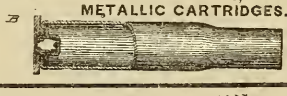
117,171 H. HARRISON HILL, BUGGY-SPRINGS.



117,172 THOMAS HILL, PROJECTILES.



117,173 ALFRED CHARLES HOBBS, METALLIC CARTRIDGES.

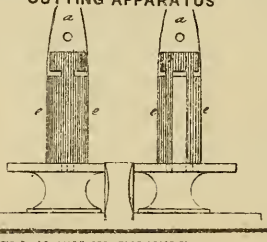


117,174 OLIVER HYDE, TRACTION-WHEELS.

WILLARD C. JAMES, BELT-FASTENERS. 117,175

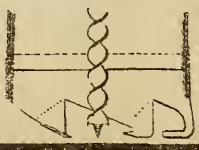
117,177 JAMES JUDGE. WOOD PAVEMENTS.

117,178 WILLIAM G. KENYON, CUTTING APPARATUS

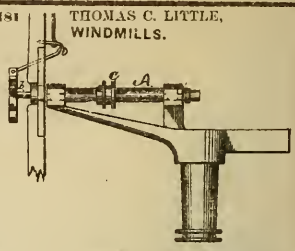


117,179 WILSON W. KNOWLES, BODY-LOOPS FOR CARRIAGES.

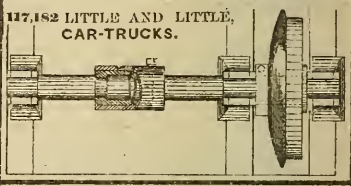
117,180 NOAH H. LINDLEY. EARTH-AUGERS



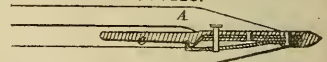
117,181 THOMAS C. LITTLE, WINDMILLS.



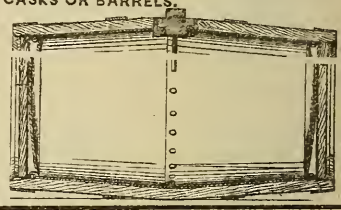
117,182 LITTLE AND LITTLE, CAR-TRUCKS.



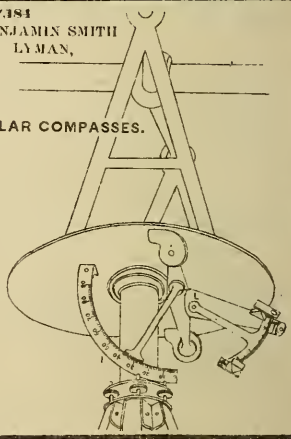
117,183 JOSEPH LOFVENDAHL, LOOM-SHUTTLES.



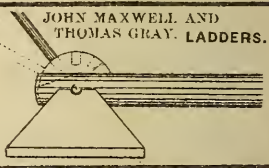
117,185 JOHN MARSHALL, CASKS OR BARRELS.



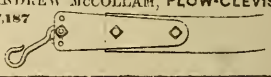
117,184 BENJAMIN SMITH LYMAN, SOLAR COMPASSES.



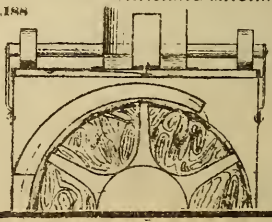
117,186 JOHN MAXWELL AND THOMAS GRAY. LADDERS.



ANDREW McCOLLAM, PLOW-CLEVISES. 117,187

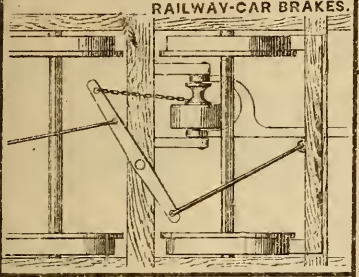


WILLIAM McCORD, WASHING-MACHINES. 117,188

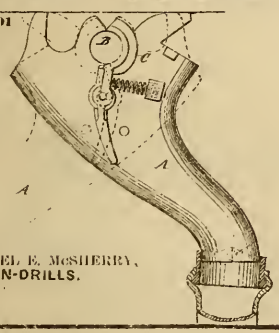


117,189
JOSEPH McGEE,
NECK-TIE RETAINERS.

117,190 JOHN W. McGLASHAN,
RAILWAY-CAR BRAKES.

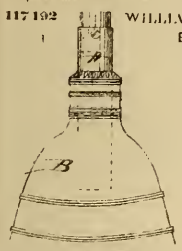


117,191

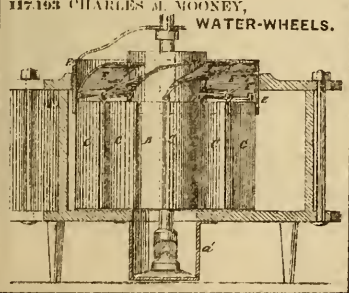


DANIEL E. McSHERRY,
GRAIN-DRILLS.

117,192 WILLIAM A. MIDDLETON,
BROOMS.



117,193 CHARLES M. MOONEY,
WATER-WHEELS.



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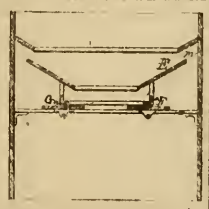
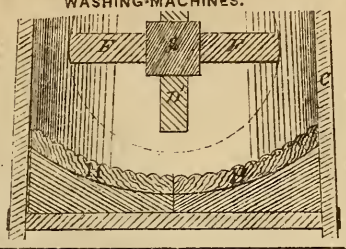
GEORGE RODNEY MOORE,
STOVE-GRATES.

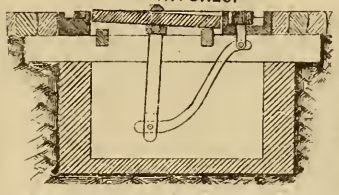


117,195 JOHN F. MORLEY,
SAFETY TRACE-FASTENERS.

117,197 THOMAS B. NEILL,
WASHING-MACHINES.

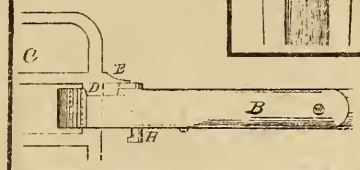


117,198 THOMAS NEWMAN,
RAILWAY SWITCHES.



117,200 ADOLPH PEARL,
SHAPING CIGAR-BUNCHES.

117,201
THOMAS W. PEIRCE,
HAY-RAKES AND FORK



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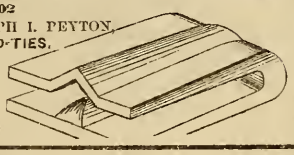
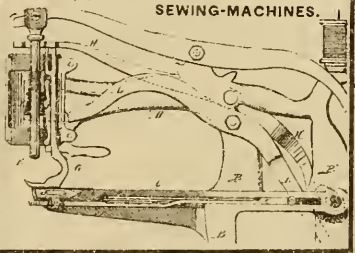
JOSEPH I. PEYTON,
BAND-TIES.



117,203 J. JEAND W. PITT,
SEWING-MACHINES.



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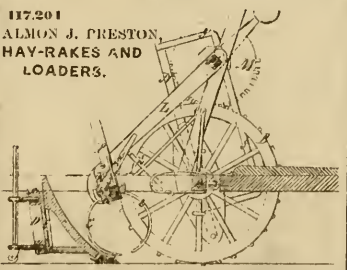
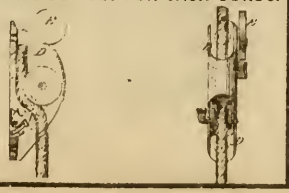
ALMON J. PRESTON,
HAY-RAKES AND LOADERS.

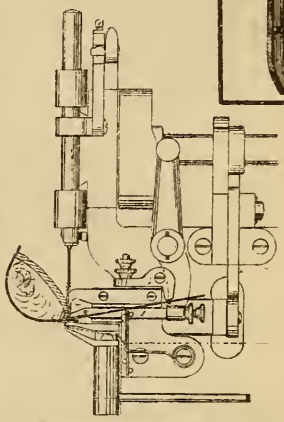


117,205 CHARLES R. RAND,
CLAMPING DEVICES FOR SASH-CORDS.



117,206 BAKER W. REYNOLDS,
BLOWER-TUBES FOR FURNACES.

117,207
EVERETT P. RICHARDSON,
SEWING-MACHINES FOR BOOTS



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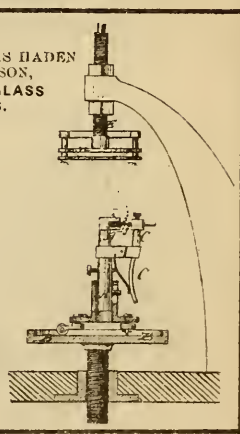
JOHN THOMAS HADEN RICHARDSON,
CUTTING GLASS GLOBES.



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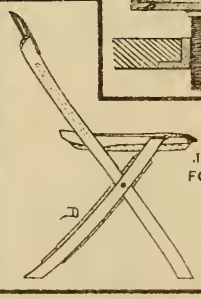
J. MAX RUDIGER,
FOLDING CHAIRS



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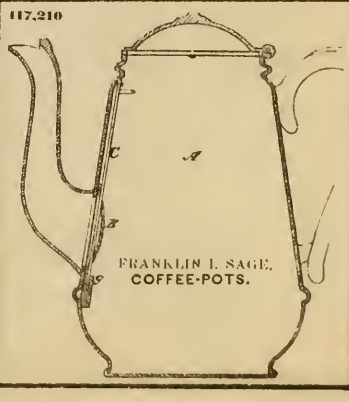
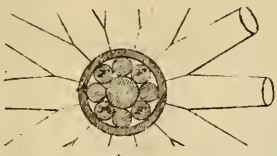


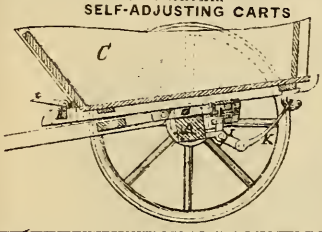
FRANKLIN I. SAGE,
COFFEE-POTS.

117,211 SEYL, FISCHER, AND BRENNER.
ANTI-FRICTION AXLE-BOXES.

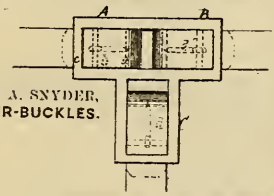


117,212 WILLIAM E. SHAW.
WOOD PAVEMENTS.

117,213 ISAAC SHOWALTER.
SELF-ADJUSTING CARTS

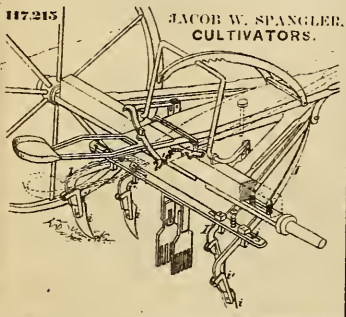


117,214

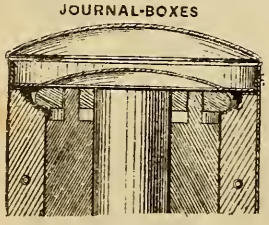


PHILIP A. SNYDER,
HALTER-BUCKLES.

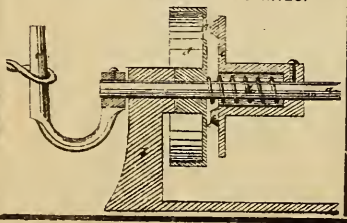
117,215 JACOB W. SPANGLER.
CULTIVATORS.



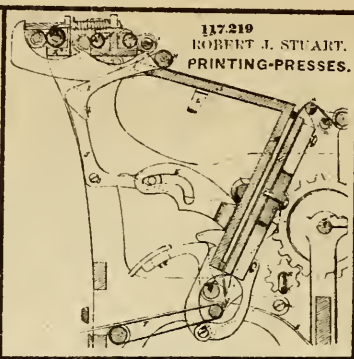
117,217 SYLVESTER T. F. STERICK.
JOURNAL-BOXES



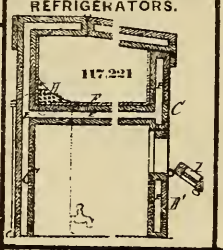
117,218 THOMAS STIBBS,
SKEIN-TWISTING MACHINES.



117,219
ROBERT J. STUART.
PRINTING-PRESSES.

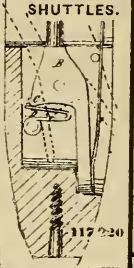


JOSEPH RAMON TORRES.
REFRIGERATORS.



117,221

E. A. THISSELL.
SHUTTLES.



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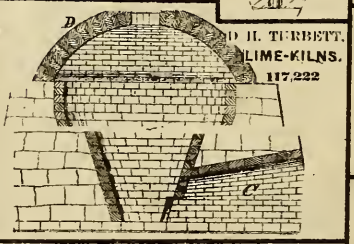
D. H. TURBETT.
LIME-KILNS.
117,222



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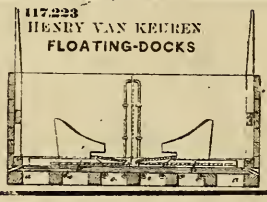
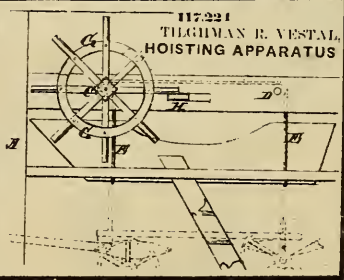
HENRY VAN KEUREN
FLOATING-DOCKS



117,224
TILGHMAN R. VESTAL.
HOISTING APPARATUS



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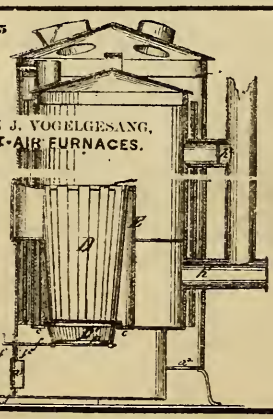
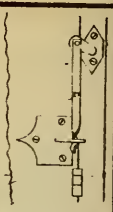
JOHN J. VOGELGESANG.
HOT-AIR FURNACES.

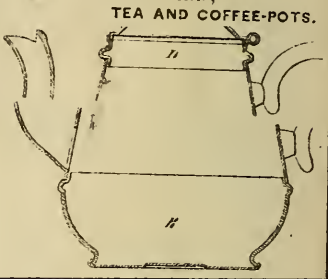


117,226
LEWIS H. WATSON.
SHUTTER-WORKERS



117,227 GEORGE A. WILBUR
SASH-CORD FASTENERS

117,228 LINUS H. WILLIAMS,
TEA AND COFFEE-POTS.



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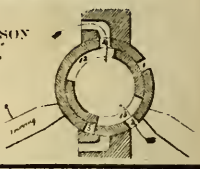
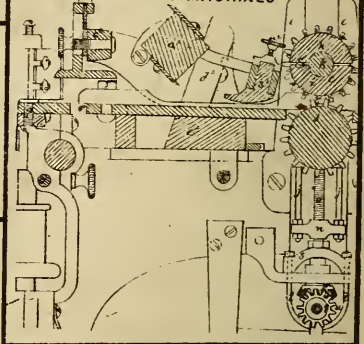
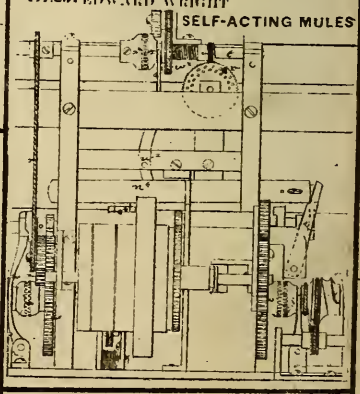
DAVID WILLIAMSON
LIQUID-METERS.



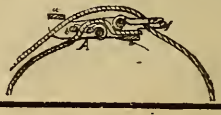
117,230 WOODBURY WOODS.
PLANING-MACHINES



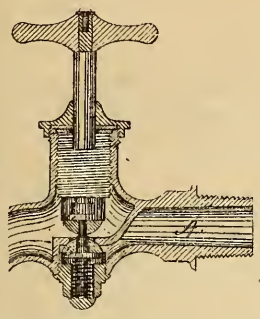
117,231 EDWARD WRIGHT
SELF-ACTING MULES



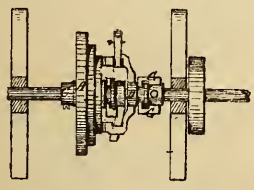
117,232 WILLIAM YOST, BUCKLES.



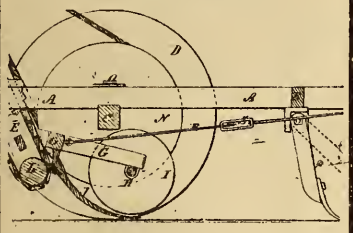
117,233
WILLIAM YOUNG
COMPRESSION-BIBS



117,234
GEORGE CLISBEE
FRICTION-CLUTCHES

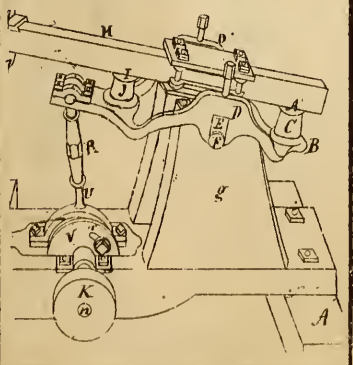


117,235
BENJAMIN RHETT
DITCHING-MACHINES

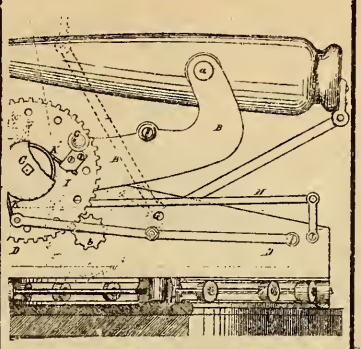


117,236 TAYLOR AND HODGETTS
CAPS FOR PRESERVE-JARS

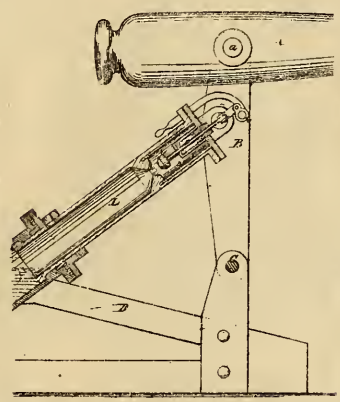
4,470
BUTTERFIELD AND HAY
TRIP-HAMMERS



4,471
JAMES B. EADS.
GUN-CARRIAGES

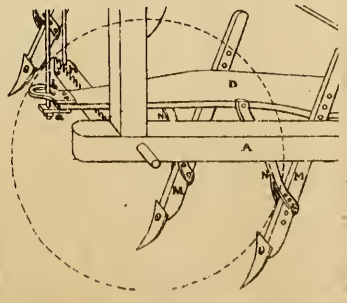


4,472 JAMES B. EADS, GUN-CARRIAGES.

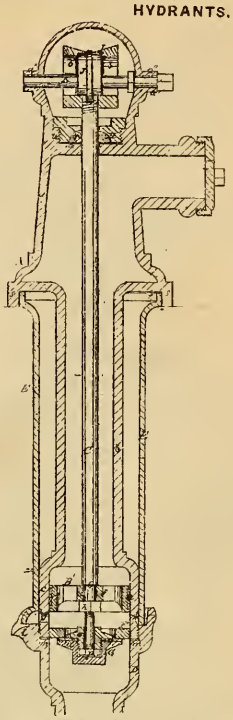


4,473 JOHN F. HOLT
CLOTHES-WRINGERS, &c

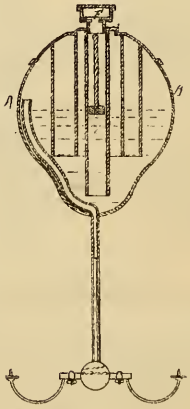
4,474
LEONARD PACKARD
CULTIVATORS



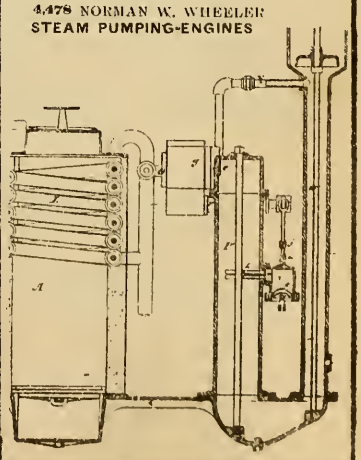
4,475 MATHEWS AND RACE,
HYDRANTS.



4,476 BYRON SLOPER
CARBURETING AIR



4,478 NORMAN W. WHEELER
STEAM PUMPING-ENGINES



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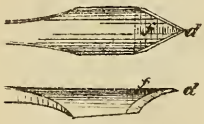
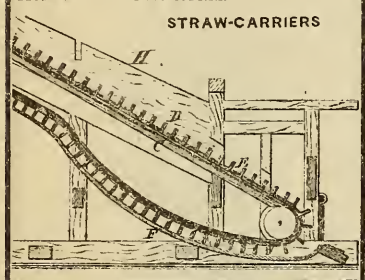
THE UNITED STATES PATENT OFFICE

JULY 25, 1871.

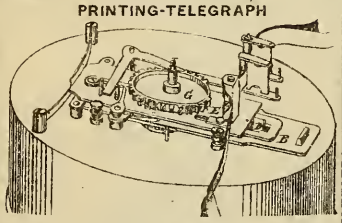
117,237 SEWALL L. ABBOTT, COUNTERSINKS.



117,238 OTIS ABELL, STRAW-CARRIERS



117,239 GEORGE L. ANDERS, PRINTING-TELEGRAPH

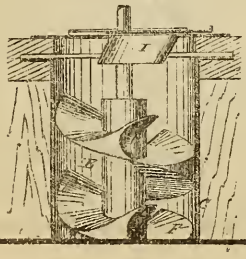


117,240 HENRY ARDEN, RECORD-BOOKS.

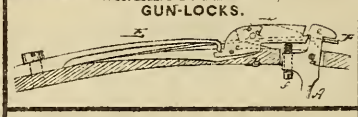
117,242 WILLIAM E. BANTA, LEVER-STAFFS FOR WATCHES,

117,243 JONATHAN B. L. BARTLETT, HORSE-RAKE TEETH.

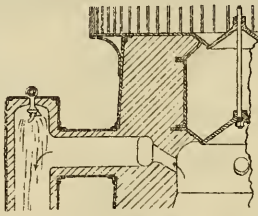
117,244 JOSEPH BELL, WATER-WHEELS.



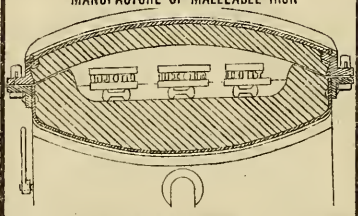
117,245 WILLIAM N. BENNETT, GUN-LOCKS.



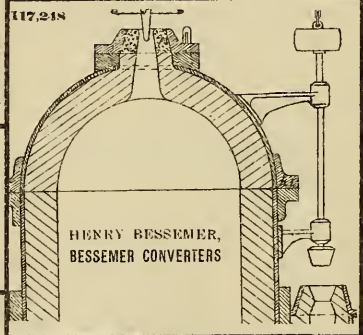
117,246 HENRY BESSEMER, BLAST-FURNACES.



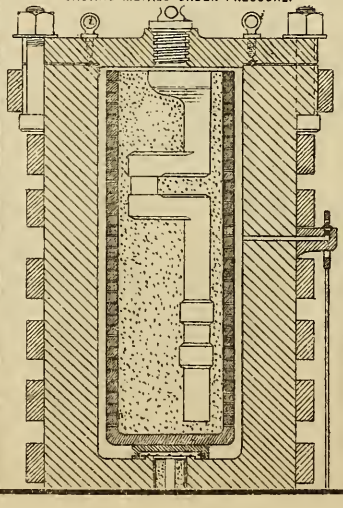
117,247 HENRY BESSEMER, MANUFACTURE OF MALLEABLE IRON



117,248 HENRY BESSEMER, BESSEMER CONVERTERS

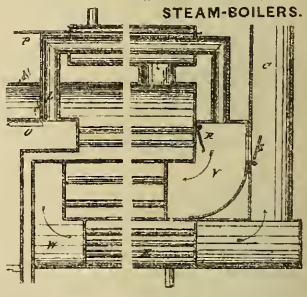


117,249 HENRY BESSEMER, CASTING METALS UNDER PRESSURE.

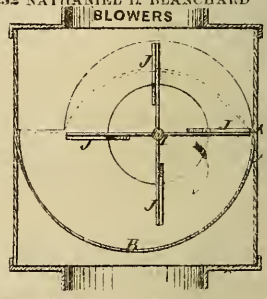


117,250 HENRY BESSEMER, METALLURGICAL FURNACES.

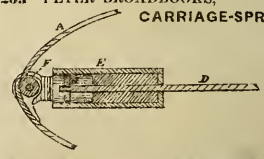
117,251 NATHANIEL L. BLANCHARD, STEAM-BOILERS.



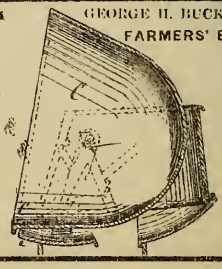
117,252 NATHANIEL L. BLANCHARD BLOWERS



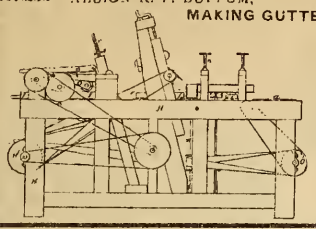
117,253 PETER BROADBOOKS, CARRIAGE-SPRINGS.



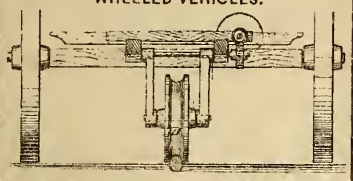
117,254 GEORGE H. BUCKLEY, FARMERS' BOILERS.



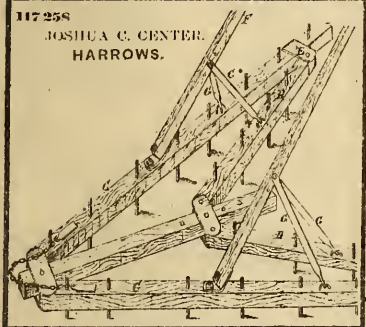
117,255 ALBION K. P. BUFFUM, MAKING GUTTERS



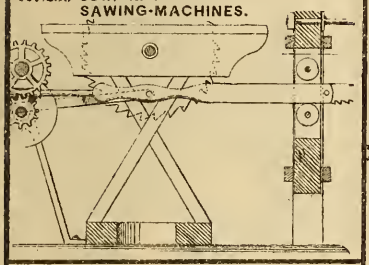
117,257 JAMES F. CASS, WHEELED VEHICLES.



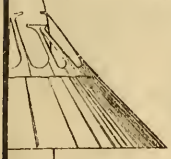
117,258 JOSHUA C. CENTER, HARROWS.



117,259 CORNELIOUS COLLINS, SAWING-MACHINES.

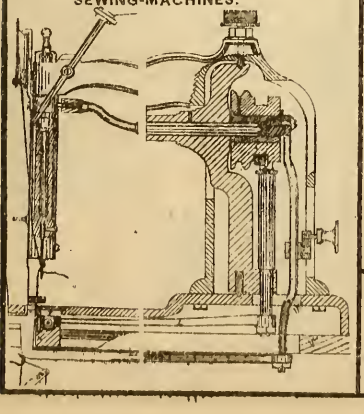


117,260 MICHAEL H. COLLINS, LAMP-SHADES.

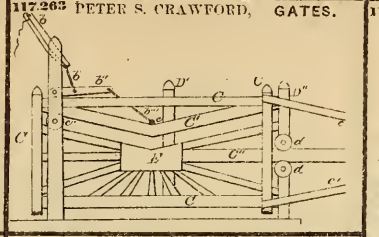


JAMES M. CORBIN STOVE-LEGS. 117,261

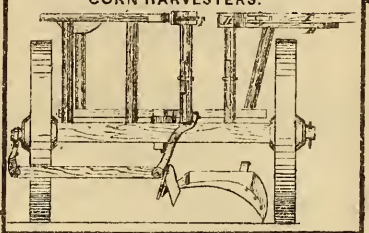
117,262 THOMAS CRANE SEWING-MACHINES.



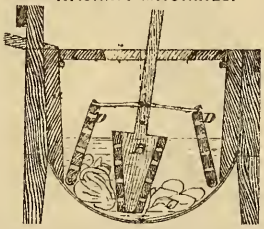
117,263 PETER S. CRAWFORD, GATES.



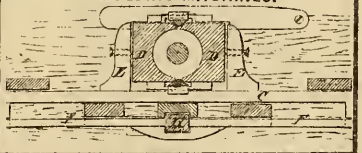
117,264 JOHN CROSSLAND, CORN-HARVESTERS.



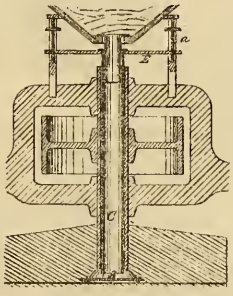
117,265 DECKER AND AYRES, WASHING-MACHINES.



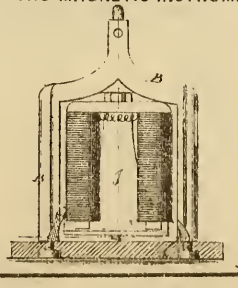
117,266 JOHN DEMAREST, MOLDING-MACHINES.



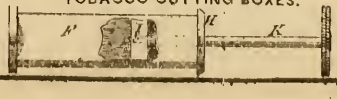
117,267 ALVAH DEWEY, FEED APPARATUS



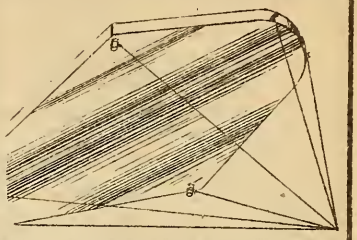
117,268 LAWRENCE L. DUERDEN ELECTRO-MAGNETIC INSTRUMENTS.



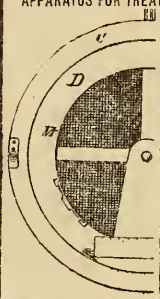
117,269 WILLIAM THEODOR FARRE, TOBACCO-CUTTING BOXES.



117,270 ISAAC FERRIS, KITES.



117,271 R. BERKELEY FITTS, APPARATUS FOR TREATING RICE,

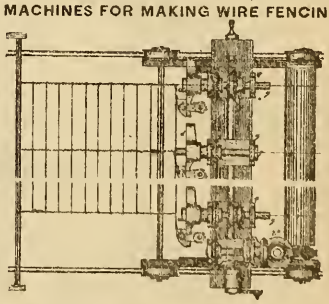


117,272 CHARLES W. GOODHUE WIRE BLANKS FOR NAPKIN-RINGS,

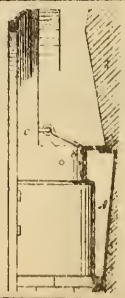
117,273 FRANCIS ROBERT GOULDING, PENCIL-CASES.

117,274 SOLOMON S. GRAY BARREL-HEADS.

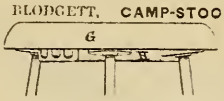
117,275 BENJAMIN GREENING, MACHINES FOR MAKING WIRE FENCING.



117,276 JOSEPH HACKETT, FIRE-PLACES.

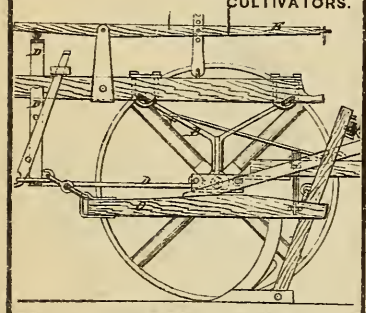


117,277 HALLOWELL ELLIOTT, AND BLODGETT, CAMP-STOOLS.

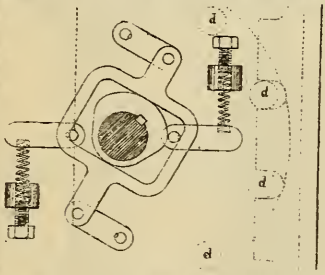


117,278 JOHN HARRIGAN, CAN-OPENERS

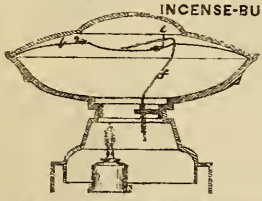
117,279 NEWTON J. HARRIS, CULTIVATORS.



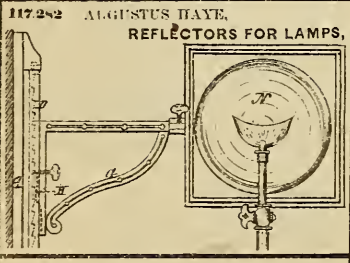
117,280 JACOB G. HARROUN, CONVERTING RECTILINEAR INTO ROTARY MOTION.



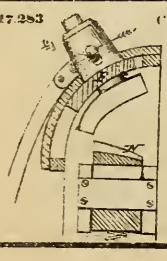
117,281 E. WARREN HASTINGS, INCENSE-BURNERS.



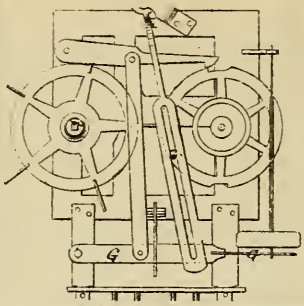
117,282 AUGUSTUS HAYE, REFLECTORS FOR LAMPS.



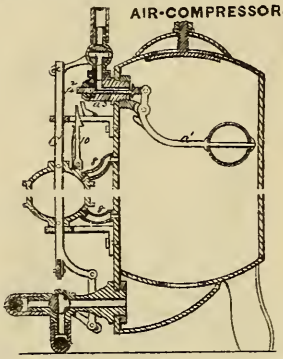
117,283 CHARLES H. HELMS, POLISHING BOOT AND SHOE-HEELS.



117,284 GEORGE HERRMANN, SWINGING CLOCKS.

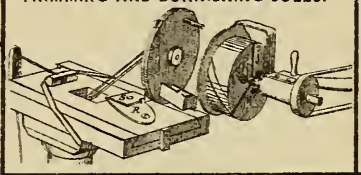


117,285 MICHAEL HEY, AIR-COMPRESSORS.

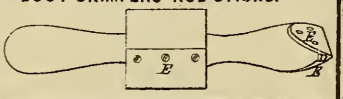


117,286 ISAAC H. HOBBS, PAVEMENTS.

117,287 SAMUEL H. HODGES, TRIMMING AND BURNISHING SOLES.

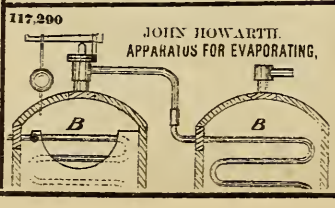


117,288 ALONZO J. F. HOWARD, BOOT-CRIMPERS' RUB-STICKS.

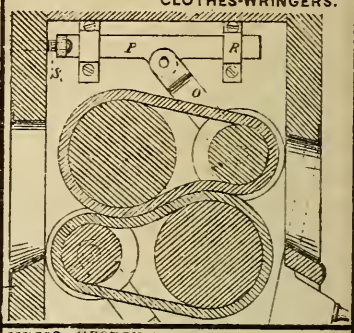


117,289 JAMES L. HOWARD, RAILROAD-CAR VENTILATORS.

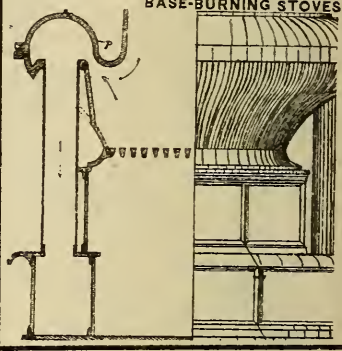
117,290 JOHN HOWARTH, APPARATUS FOR EVAPORATING.



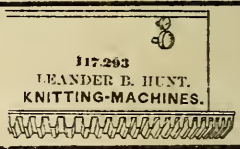
117,291 CHARLES H. HUDSON, CLOTHES-WRINGERS.



117,292 GEORGE G. HUNT, BASE-BURNING STOVES.

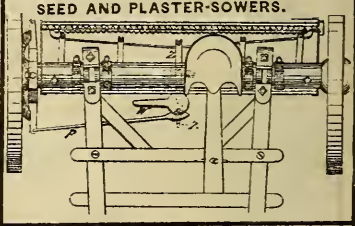


117,293 LEANDER B. HUNT, KNITTING-MACHINES.



117,294 INNES AND MAGILL, MANTELS

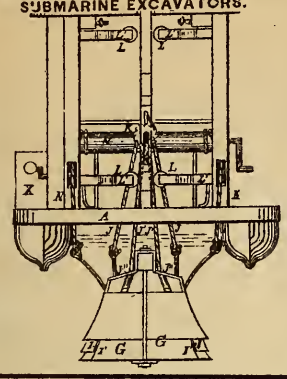
117,295 JESSUP AND SHARP, SEED AND PLASTER-SOWERS.



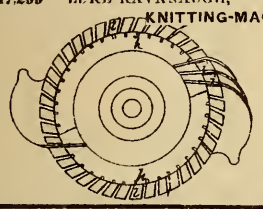
117,296 JAMES GUTHRIE JOHNSON, HAND CORN-HUSKERS.

117,297 ROLLIN L. JONES, POST-HOLE DIGGERS

117,298 THOMAS JONES.
SUBMARINE EXCAVATORS.



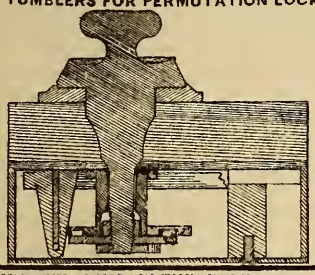
117,299 LUKE KAVANAUGH,
KNITTING-MACHINES



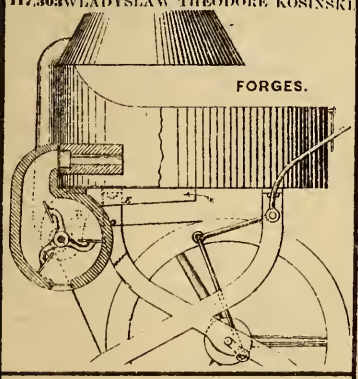
117,300
HENRY D. KEITH AND JOHN T. KEITH.

WAGON-WHEELS.

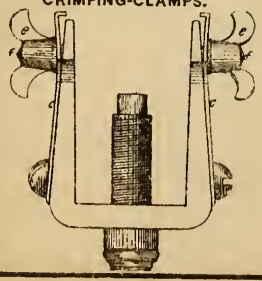
117,302 WILLIAM KOCK,
TUMBLERS FOR PERMUTATION LOCKS.



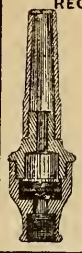
117,303 WLADYSLAW THEODORE KOSINSKI.
FORGES.



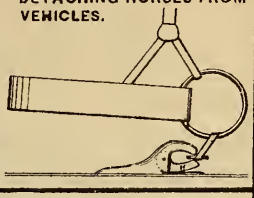
117,304 JOHN KUNSTLER,
CRIMPING-CLAMPS.



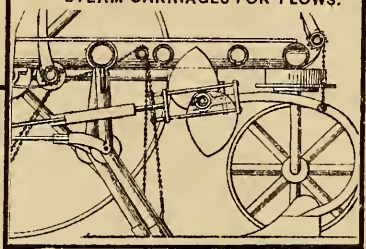
117,305 EDWARD LAWLER.
REGULATORS FOR GAS-BURNERS.



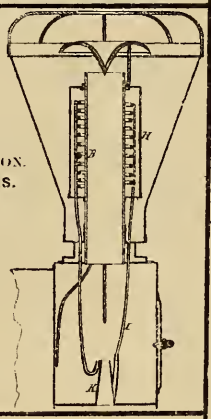
117,306 GEORGE B. LUMPKIN
DETACHING HORSES FROM VEHICLES.



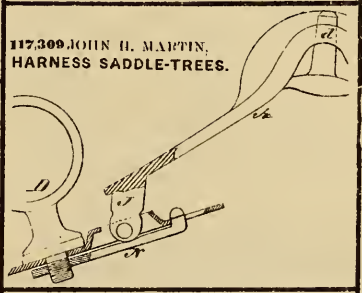
117,307 MIRABEAU N. LYNN.
STEAM-CARRIAGES FOR PLOWS.



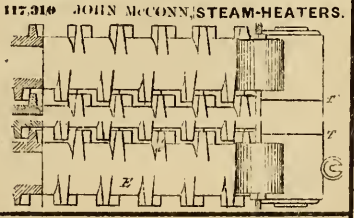
117,308
ISRAEL P. MAGOON.
LOCOMOTIVES.



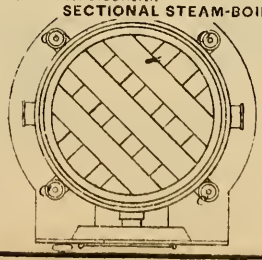
117,309 JOHN H. MARTIN,
HARNESS SADDLE-TREES.



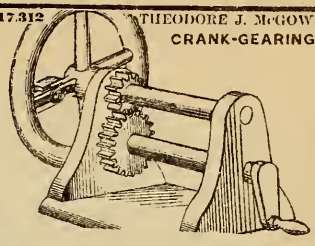
117,310 JOHN McCONN, STEAM-HEATERS.



117,311 JOHN McCONN.
SECTIONAL STEAM-BOILERS.

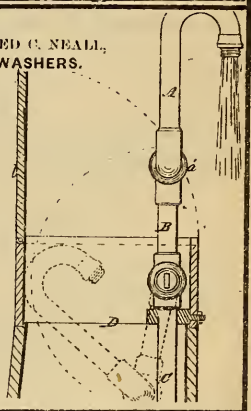


117,312 THEODORE J. McGOWAN
CRANK-GEARINGS.

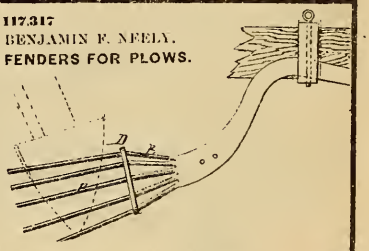


117,315 HENRY T. MORSE FOLDING SETTEES.

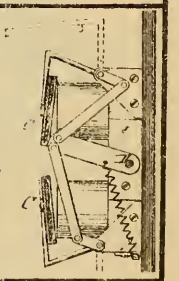
117,316 ALFRED C. NEALL,
PAVEMENT-WASHERS.



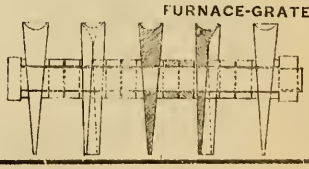
117,317
BENJAMIN F. NEELY.
FENDERS FOR PLOWS.



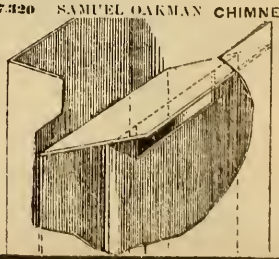
117,318
OSCAR W. NOBLE,
COVERS FOR LENSES



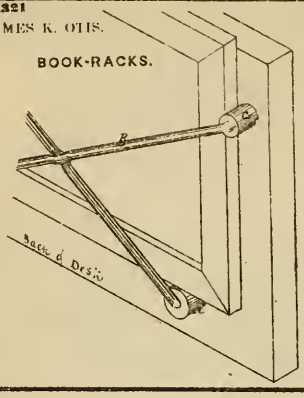
117,319 CALVIN M. NORTHRUP
FURNACE-GRATES



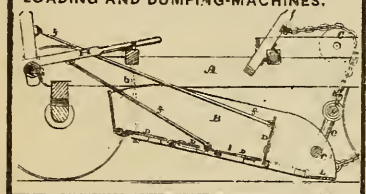
117,320 SAMUEL OAKMAN CHIMNEYS.



117,321 JAMES K. OTIS.
BOOK-RACKS.



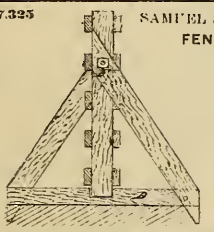
117,322 MOREAU PHILLIPS,
LOADING AND DUMPING-MACHINES.



117,323 JAMES PITZLER
NEEDLE-WRAPPERS.

117,324 JAMES PITZLER.
NEEDLE-WRAPPERS.

117,325 SAMUEL S. PORTER,
FENCES.

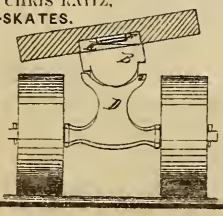


117,326
CHARLES C. POST
SAP-SPOUTS.

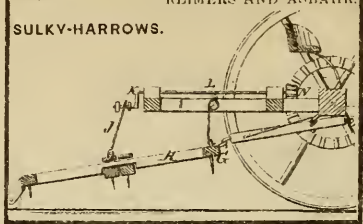
117,327 JAMES MARTIN PRICE, ROOFS.

117,328 FRANKLIN E. PRINDLE
THILL-COUPLINGS.

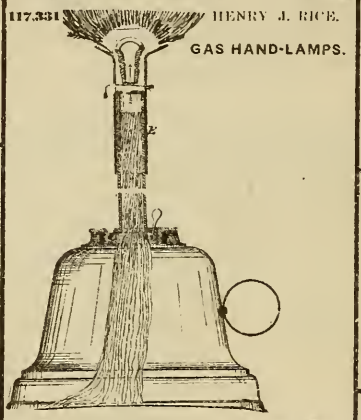
117,329 CHRIS RAITZ,
PARLOR-SKATES.



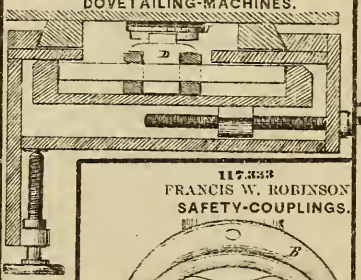
117,330 REIMERS AND ASBAHR.
SULKY-HARROWS.



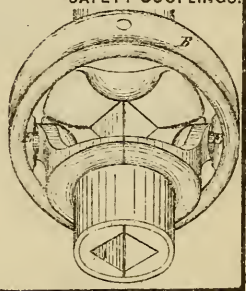
117,331 HENRY J. RICE.
GAS HAND-LAMPS.



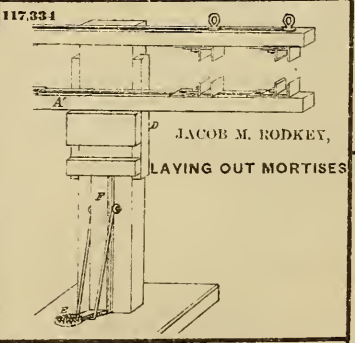
117,332 JOHN B. RITCHEY,
DOVETAILING-MACHINES.



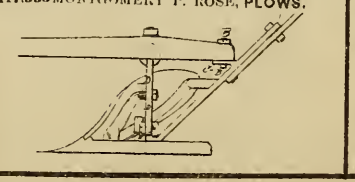
117,333
FRANCIS W. ROBINSON
SAFETY-COUPLINGS.



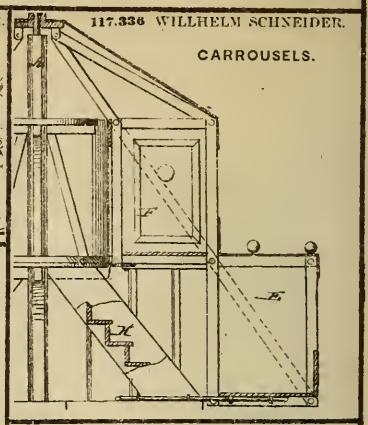
117,334
JACOB M. RODKEY,
LAYING OUT MORTISES



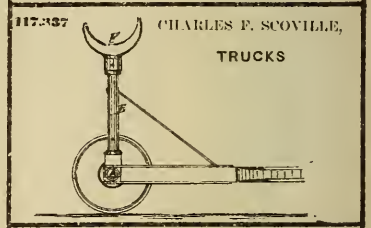
117,335 MONTGOMERY P. ROSE, PLOWS.



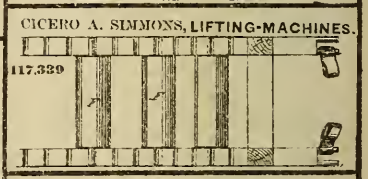
117,336 WILLHELM SCHNEIDER.
CARROUSELS.



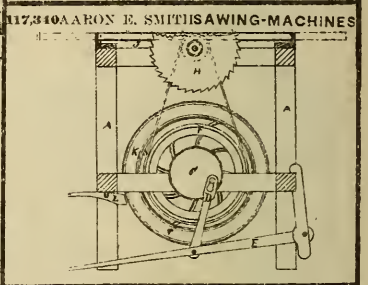
117,337 CHARLES F. SCOVILLE,
TRUCKS



CICERO A. SIMMONS, LIFTING-MACHINES.
117,339



117,340 AARON E. SMITH SAWING-MACHINES

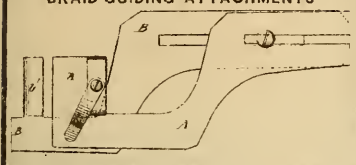


117,341
DANIEL E. SOMES.
LAMP-CHIMNEYS.

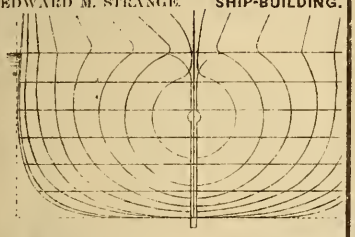
117,342 MASA BRANCH SOUTHWICK,
FLAX-BRAKES.

117,343 DANIEL M. SPROGLE. MOLDS.

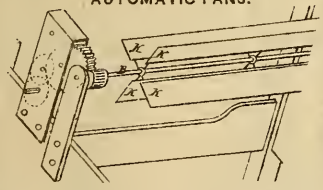
117,344 ELEANOR C. SPROUL
BRAID-GUIDING ATTACHMENTS



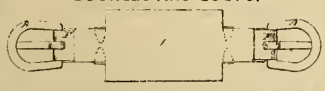
117,345
EDWARD M. STRANGE. SHIP-BUILDING.



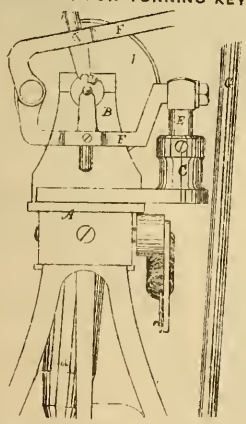
117,346 EDWARD D. SWARTWOUT,
AUTOMATIC FANS.



117,347 SAMUEL C. TALCOTT
BUCKLES AND LOOPS.

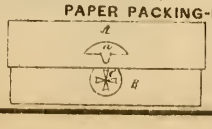


117,348 TERRY, AND HUNTER
MACHINES FOR TURNING KEYS.



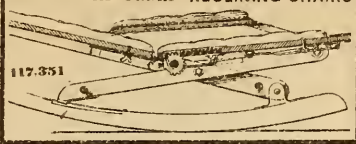
117,349 JOHN W. TUTTLE,
PACKING-BOXES.

117,350 JOHN W. TUTTLE,
PAPER PACKING-BOXES.

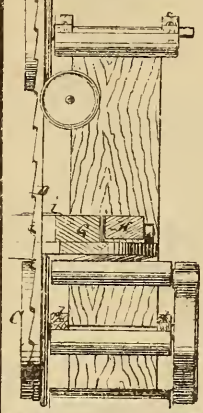


LUTHER VAN ORDEN RECLINING-CHAIRS

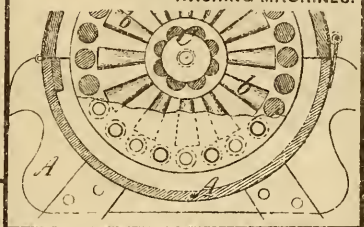
117,351



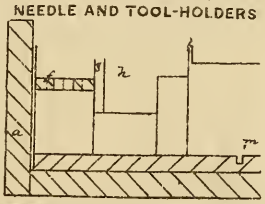
117,352 EPHRAIM B. WELLS.
MACHINES FOR CUTTING CLOTH.



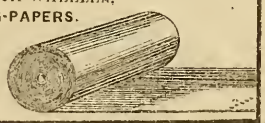
117,353 DECATUR WERST.
WASHING-MACHINES.



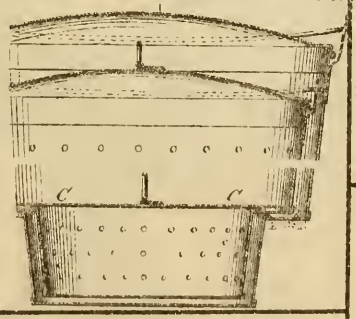
117,354 HENRY H. WESCOTT.
NEEDLE AND TOOL-HOLDERS



117,355 SETH WHEELER,
WRAPPING-PAPERS.

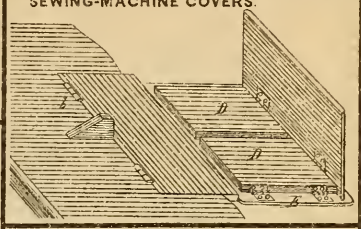


117,356 RALPH C. WHITEHOUSE.
CULINARY BOILERS.

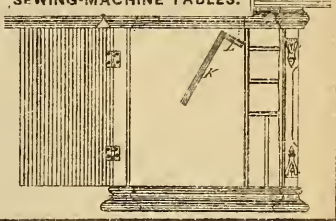


117,357 ELIHU WILDER.
SET-SCREWS

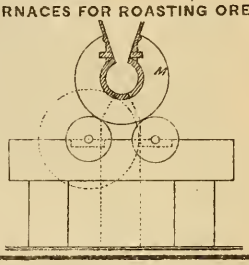
117,358 FRANCIS R. WOLFINGER
SEWING-MACHINE COVERS.



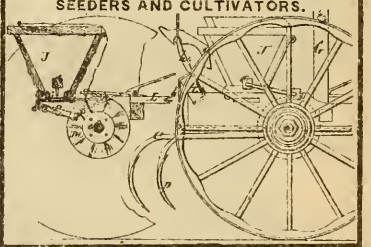
117,359 FRANCIS R. WOLFINGER,
SEWING-MACHINE TABLES.



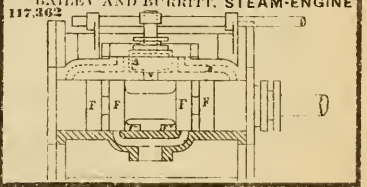
117,360 STEPHEN F. AMBLER,
FURNACES FOR ROASTING ORES.



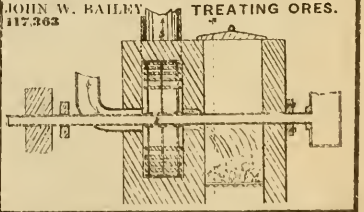
117,361 MICHAEL BAER,
SEEDERS AND CULTIVATORS.



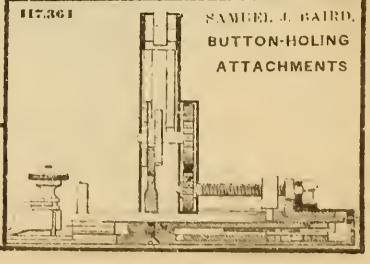
BAILEY AND BURRITT, STEAM-ENGINE
117,362



JOHN W. BAILEY, TREATING ORES.
117,363



117,364 SAMUEL J. BAIRD,
BUTTON-HOLING
ATTACHMENTS



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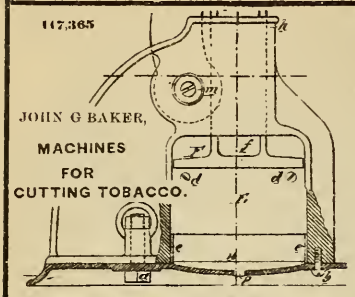
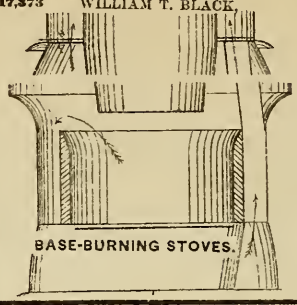
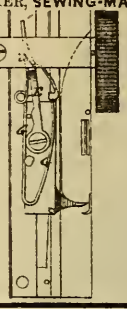
JOHN G BAKER,
MACHINES FOR CUTTING TOBACCO.

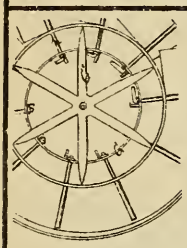


117,373 WILLIAM T. BLACK,
BASE-BURNING STOVES.

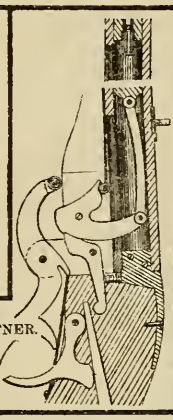


WILLIAM H. BUKER, SEWING-MACHINES.
117,380



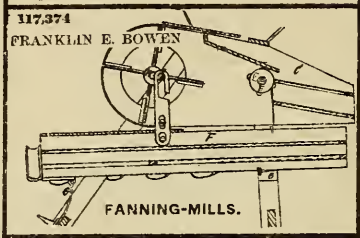


WILLIAM BALL
METER
117,366

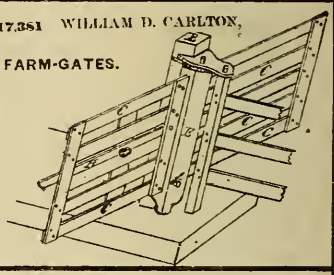


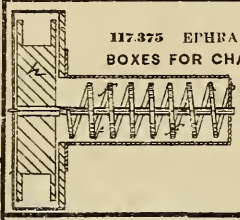
BANDLE AND CHRISTNER.
CAP-GUN
117,367

117,374
FRANKLIN E. BOWEN
FANNING-MILLS.



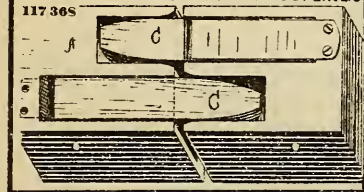
117,381 WILLIAM D. CARLTON,
FARM-GATES.



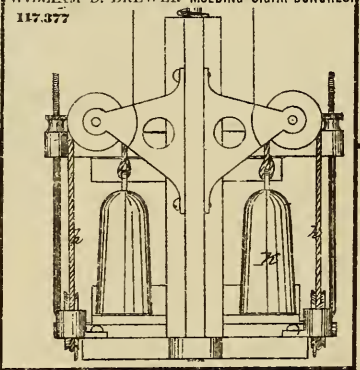


117,375 EPHRAIM BRALEY,
BOXES FOR CHALK-LINES.

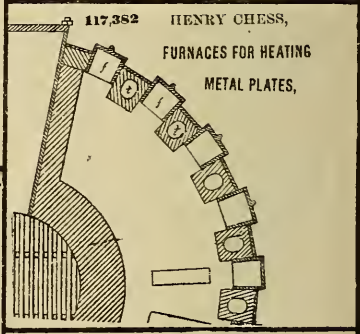
PELEG C. BARLOW, CAR-COUPLINGS
117,368



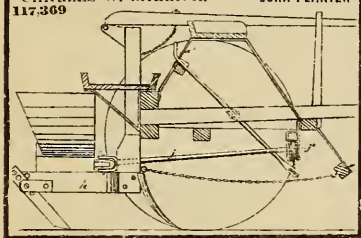
WILLIAM D. BREWER MOLDING CIGAR-BUNCHES.
117,377



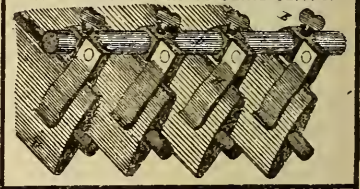
117,382 HENRY CHESS,
FURNACES FOR HEATING METAL PLATES,



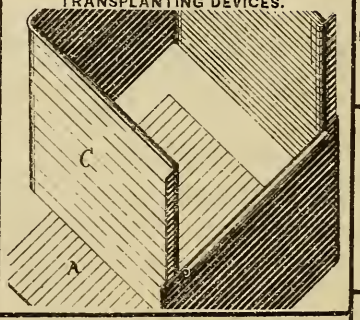
CHARLES W. BARRICK. CORN-PLANTER
117,369



117,383 JAMES CHURCH,
CLAMPS FOR ENTERING BLIND-SLATS.

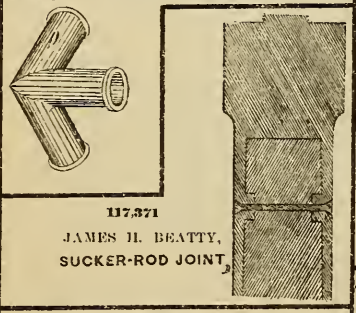


117,378 JAMES W. BROOK,
TRANSPLANTING DEVICES.



117,384
JOHN B. CORNELL,
FIRE-PROOF ROOFING.

117,370 LYMAN M. BATES,
MOSQUITO CANOPY-HOLDER



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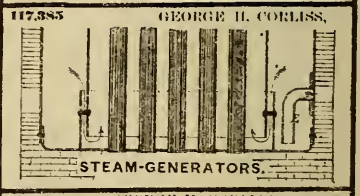
JAMES H. BEATTY,
SUCKER-ROD JOINT.

117,385 GEORGE H. CORLISS,
STEAM-GENERATORS.



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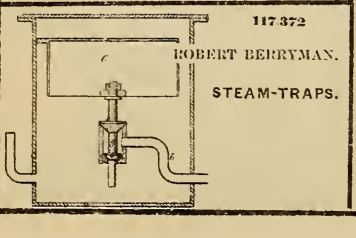
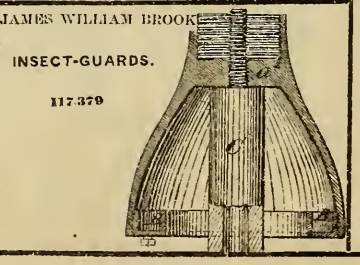
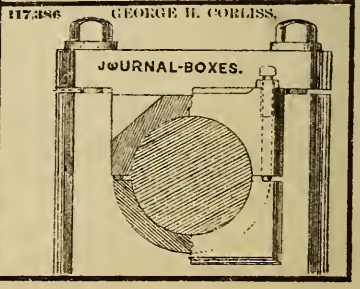
ROBERT BERRYMAN,
STEAM-TRAPS.



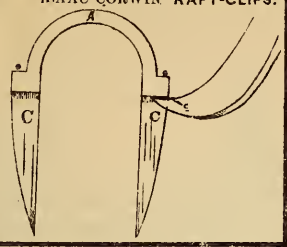
JAMES WILLIAM BROOK
INSECT-GUARDS.
117,379



117,386 GEORGE H. CORLISS,
JOURNAL-BOXES.



117,387 ISAAC CORWIN RAFT-CLIPS.

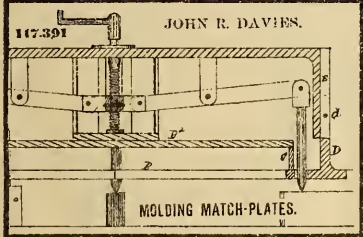


117,388 JOHN S. CRARY, METALLIC CARTRIDGES.

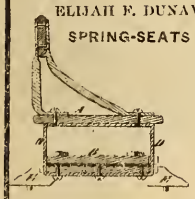
117,389 JOHN H. CROWELL LOOM-HARNESS.

117,390 DAVID DALZELL, AXLE-BOXES.

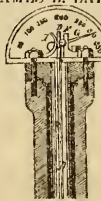
117,391 JOHN R. DAVIES. MOLDING MATCH-PLATES.



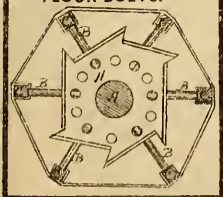
117,392 ELIJAH F. DUNAWAY. SPRING-SEATS



117,394 HENRY FLAD, AND JAMES B. EADS PRESSURE-GAUGES.

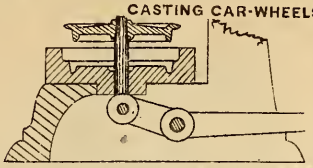


117,395 ELBRIDGE V. EASLEY FLOUR-BOLTS.

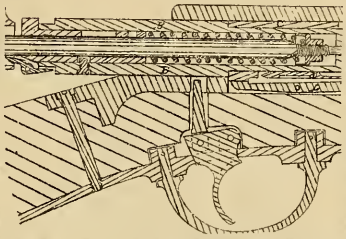


117,396 HENRY H. EDGERTON, NAPHTHA-GAS BURNERS.

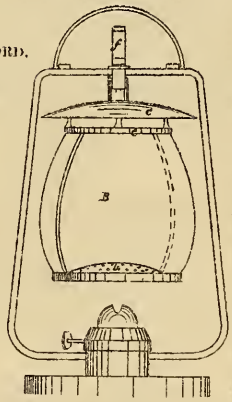
117,397 JOSIAH W. ELLS, CASTING CAR-WHEELS.



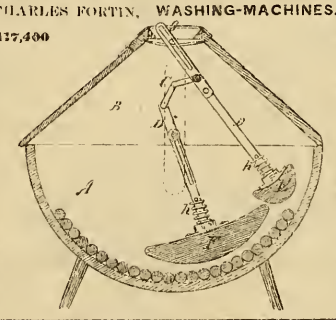
117,398 VALENTINE FOGERTY, BREECH-LOADING FIRE-ARMS.



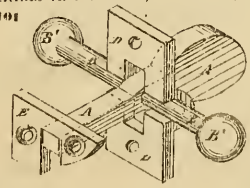
117,399 FRANK M. FORD, LANTERNS.



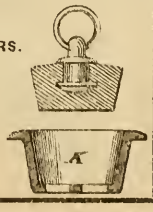
CHARLES FORTIN, WASHING-MACHINES. 117,400



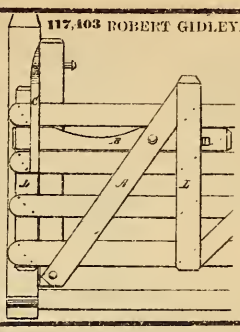
CHARLES H. FREITAG, GATE-LATCHES. 117,401



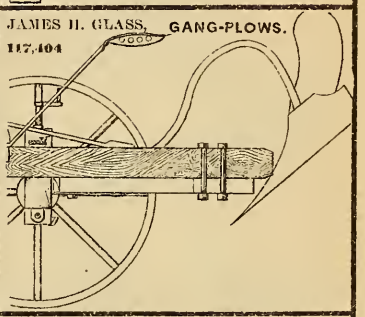
117,402 GIBSON AND POWELL. WASTE-WAY STOPPERS.



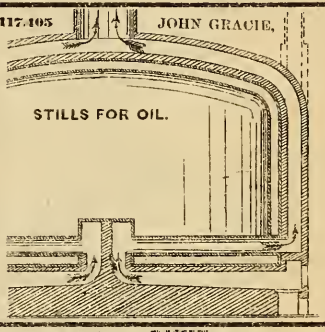
117,403 ROBERT GIDLEY, GATES.

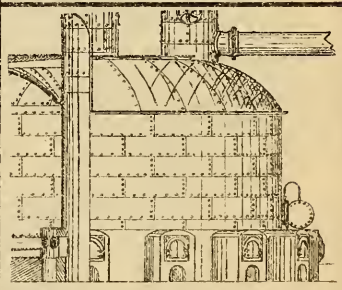


JAMES H. GLASS, GANG-PLOWS. 117,404



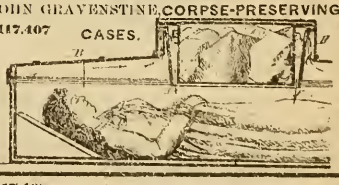
117,405 JOHN GRACIE, STILLS FOR OIL.



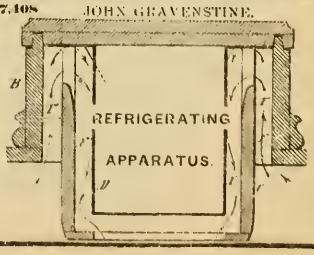


117,406 JOHN GRACIE, STILLS FOR OIL.

JOHN GRAVENSTINE, CORPSE-PRESERVING CASES. 117,407

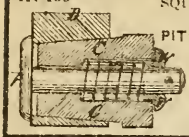


117,408 JOHN GRAVENSTINE. REFRIGERATING APPARATUS.



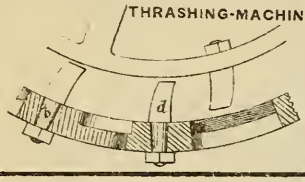
117,409 SQUIRE J. GREEN.

PITMEN-CONNECTIONS



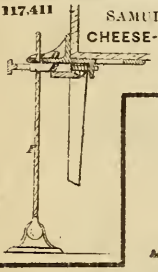
117,410 CHARLES S. HALL.

THRASHING-MACHINES.



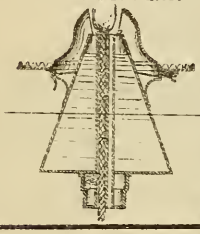
117,411 SAMUEL P. HALLECK,

CHEESE-VAT FASTENERS.



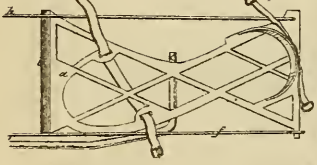
117,412 HALLEY AND LIVINGSTON,

LAMP-BURNERS.



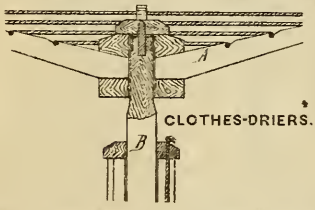
117,413 HANGER AND HANGER,

CLIMBING TELEGRAPH-POLES, &c.



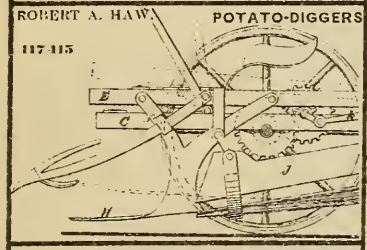
117,414 HARDING AND WILLIAMS,

CLOTHES-DRIERS.

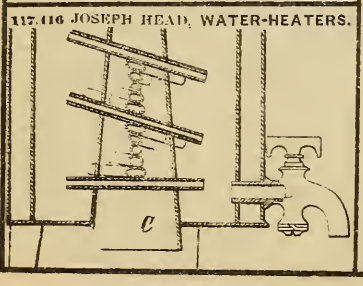


ROBERT A. HAW, POTATO-DIGGERS

117,415

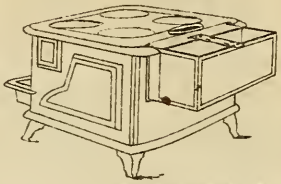


117,416 JOSEPH HEAD, WATER-HEATERS.



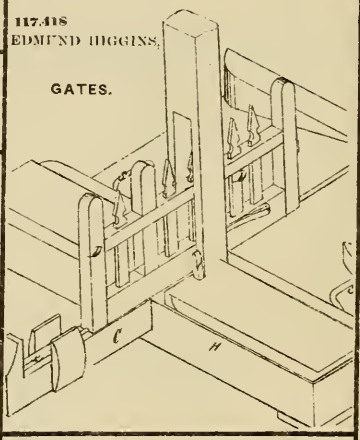
117,417 LEVI HERMANCE.

COOKING-STOVES.



117,418 EDMUND HIGGINS,

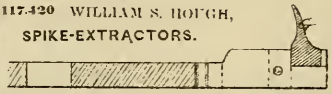
GATES.



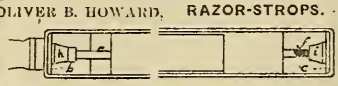
117,419 ROBERT HOOPER, CANAL-BOATS.

117,420 WILLIAM S. HOUGH,

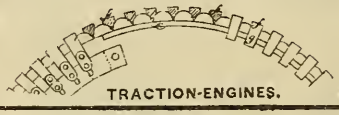
SPIKE-EXTRACTORS.



117,421 OLIVER B. HOWARD, RAZOR-STROPS.



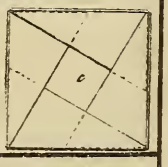
117,422 OLIVER HYDE.



TRACTION-ENGINES.

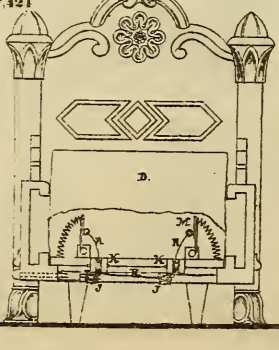
117,423 GUSTAV L. JAEGER,

PAPER BOXES.



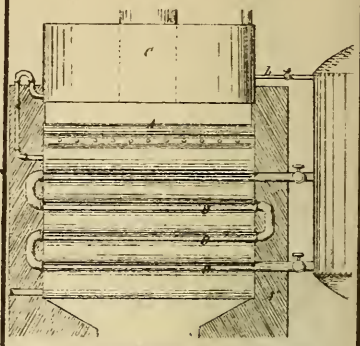
LAWRENCE J. JOHNSON, BEDSTEADS.

117,424



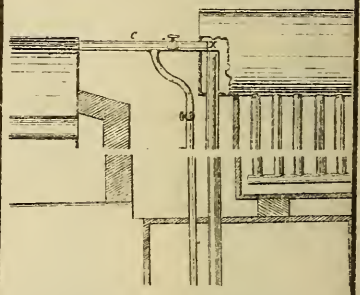
117,425 JAMES J. JOHNSTON.

DISTILLING HYDROCARBONS.



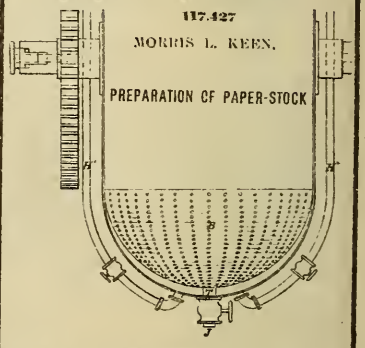
117,426 JAMES J. JOHNSTON.

TREATING HYDROCARBON OILS.

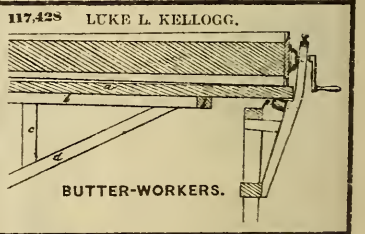


117,427 MORRIS L. KEEN.

PREPARATION OF PAPER-STOCK



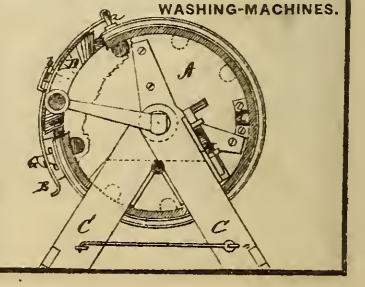
117,428 LUKE L. KELLOGG.



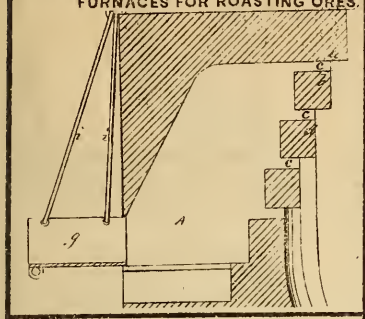
BUTTER-WORKERS.

117,429 EBENEZAR D. KITCHEN,

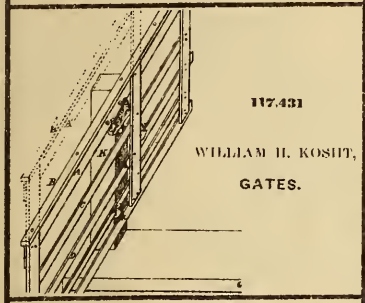
WASHING-MACHINES.



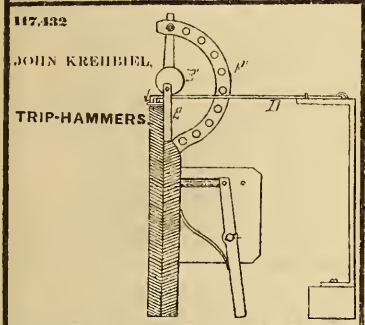
117,430 KNOX AND OSBORN.
FURNACES FOR ROASTING ORES.



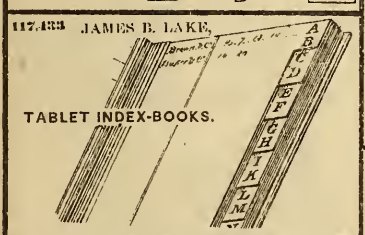
117,431
WILLIAM H. KOSHT,
GATES.



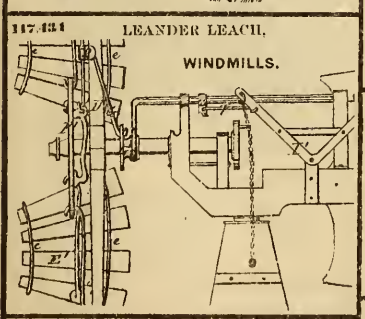
117,432
JOHN KREHBIEL,
TRIP-HAMMERS.



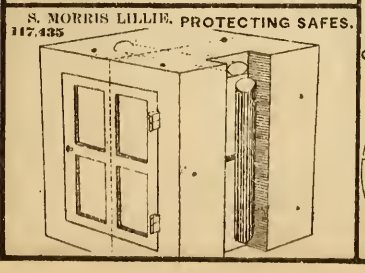
117,433 JAMES B. LAKE,
TABLET INDEX-BOOKS.



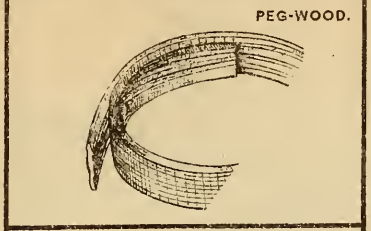
117,434 LEANDER LEACH,
WINDMILLS.



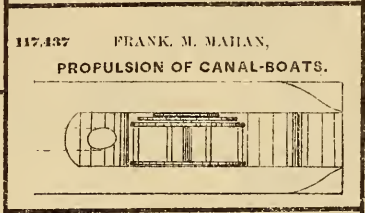
S. MORRIS LILLIE, PROTECTING SAFES.
117,435



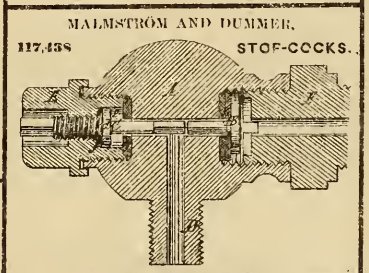
117,436 WILLIAM N. LINNELL,
PEG-WOOD.



117,437 FRANK. M. MAHAN,
PROPULSION OF CANAL-BOATS.

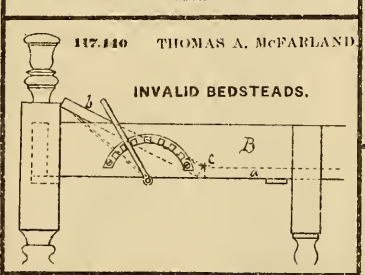


MALMSTRÖM AND DUMMER,
117,438 STOP-COCKS.

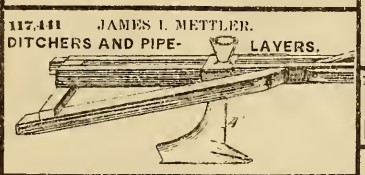


CHARLES MARKLEY, HAIR-CURLERS.
117,439

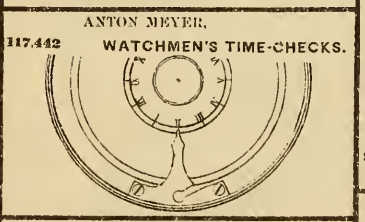
117,440 THOMAS A. McFARLAND,
INVALID BEDSTEADS.



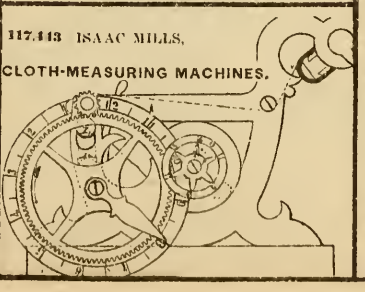
117,441 JAMES I. METTLER.
DITCHERS AND PIPE- LAYERS.



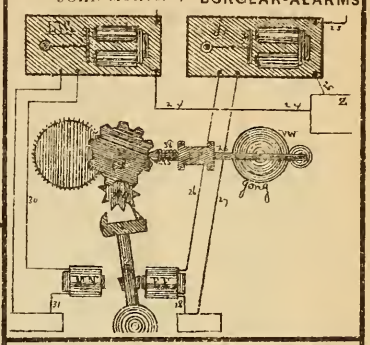
ANTON MEYER,
117,442 WATCHMEN'S TIME-CHECKS.



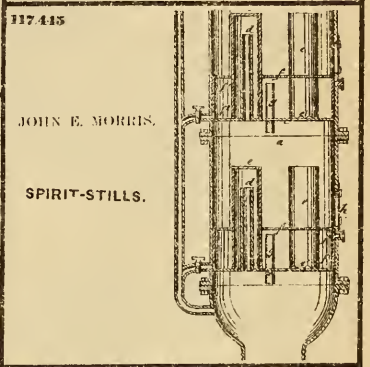
117,443 ISAAC MILLS,
CLOTH-MEASURING MACHINES.



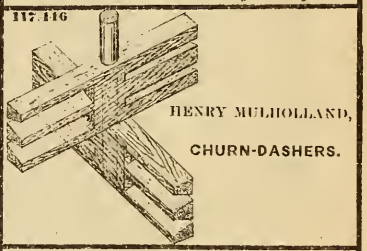
117,444 JOHN MORGAN, BURGLAR-ALARMS



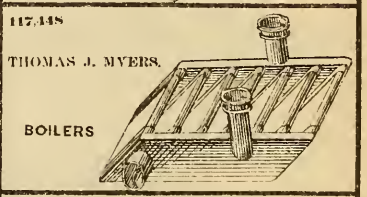
117,445
JOHN E. MORRIS,
SPIRIT-STILLS.



117,446
HENRY MULHOLLAND,
CHURN-DASHERS.

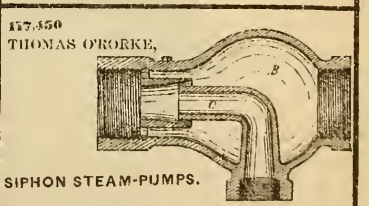


117,448
THOMAS J. MYERS,
BOILERS

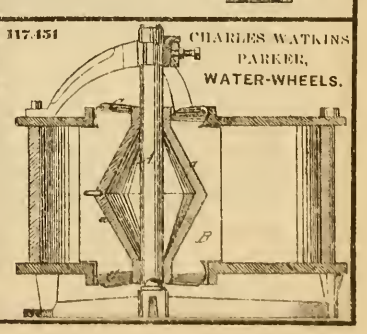


117,449
WILLARD A. NICHOLS,
RAILWAY TIES.

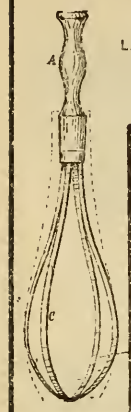
117,450
THOMAS O'ROURKE,
SIPHON STEAM-PUMPS.



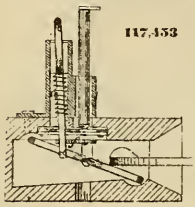
117,451
CHARLES WATKINS PARKER,
WATER-WHEELS.



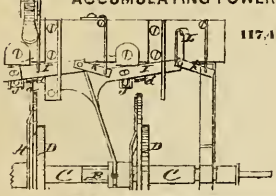
RICHARD PEARSON,
LAMP-CHIMNEY CLEANERS.
117,452



WILLIAM V. PERRY,
CAR-COUPLINGS.
117,453

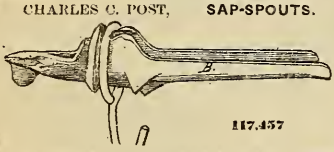


ALFRED C. PLATT,
ACCUMULATING POWER.
117,454

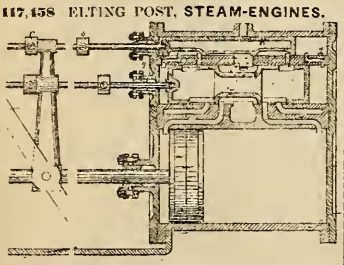


THOMAS G. PORTER,
DUSTING-BRUSHES.
117,456

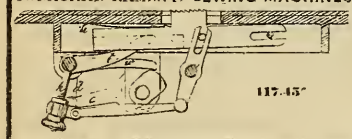
CHARLES C. POST, SAP-SPOUTS.
117,457



117,458 ELTING POST, STEAM-ENGINES.



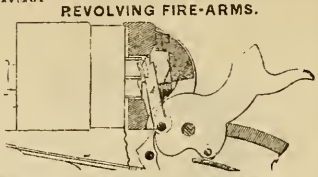
JONATHAN RAMSAY, SEWING-MACHINES.



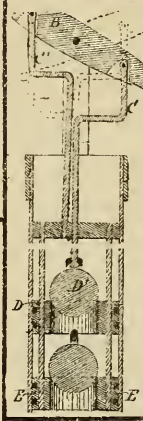
117,459

RAWSON AND RAWSON,
HARVESTERS.
117,460

117,461 CHARLES B. RICHARDS,
REVOLVING FIRE-ARMS.

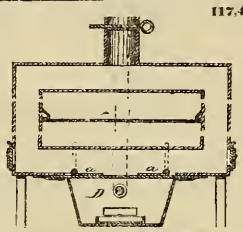


117,463

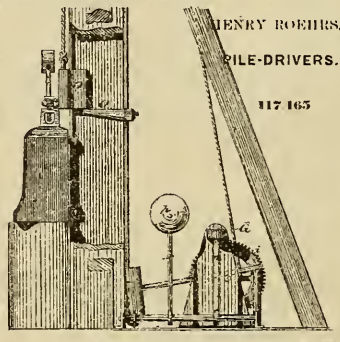


WILLIAM F. ROBINSON,
PUMPS.

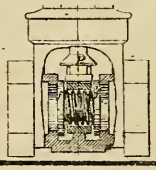
WILLIAM S. ROBINSON,
PORTABLE OVENS.
117,464

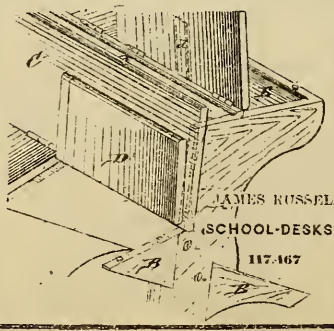


HENRY ROEHRS,
PILE-DRIVERS.
117,465



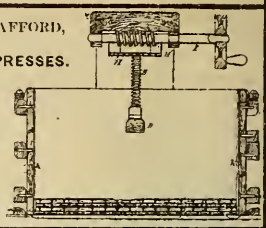
ROBERT P. ROSS,
STOP-VALVES.
117,466





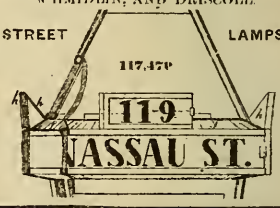
JAMES RUSSEL,
SCHOOL-DESKS.
117,467

MARK SAFFORD,
SCREW-PRESSES.
117,468

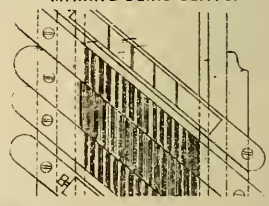


DANIEL SANDOE, WATER-WHEELS.
117,469

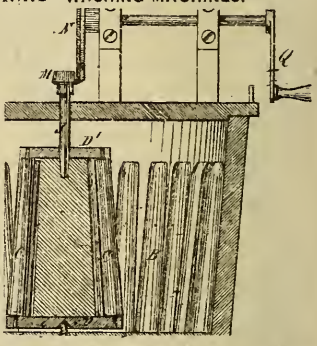
SCHMIDLIN, AND DRISCOLL
STREET LAMPS.
117,470



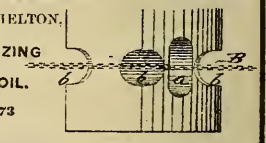
PAUL SCHUMACHER,
117,471 MAKING BLIND-SLATS.



CHARLES T. SHADBOLT,
117,472 WASHING-MACHINES.



GILLEM SHELTON,
PULVERIZING
THE SOIL.
117,473



JOHN H. SHROTE,
SHEETING DOUGH.
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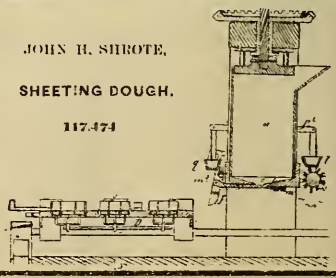
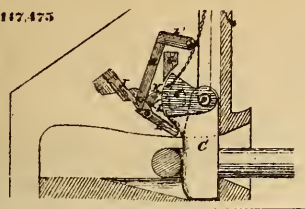
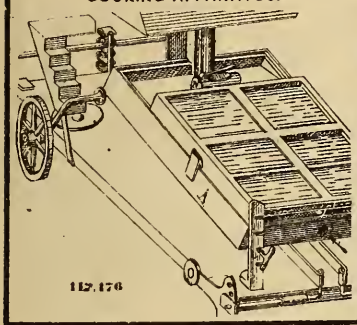


THEODORE WARREN SPARKS.
CAR-COUPLINGS.
117,475



EBENEZER SPERRY,
COOKING APPARATUS.



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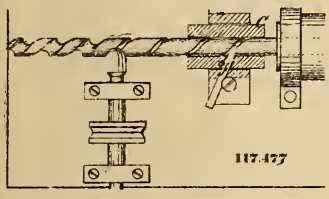
EDWARD A. STOCKTON,
TURNING SPIRAL MOLDINGS.



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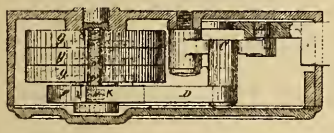
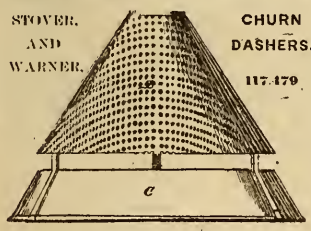
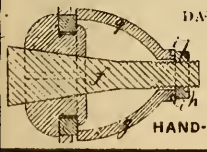
117,478 EMORY STOCKWELL,
PERMUTATION LOCKS.



STOVER, AND WARNER, CHURN DASHERS.
117,479



DANIEL SULLIVAN,



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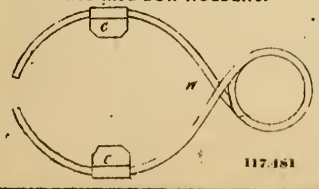
HAND-HOLE STOPPERS

NATHANIEL H. TALBOT,
BLACKING-BOX HOLDERS.



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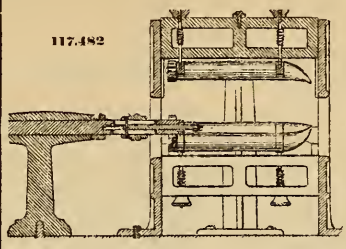
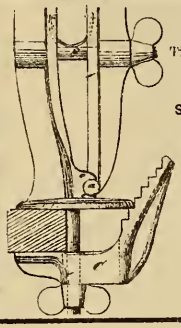
GEORGE W. TANNER, CIGAR-MACHINES.
117,482



THEODORE TERRELL,
SAW-FILERS' VISES.



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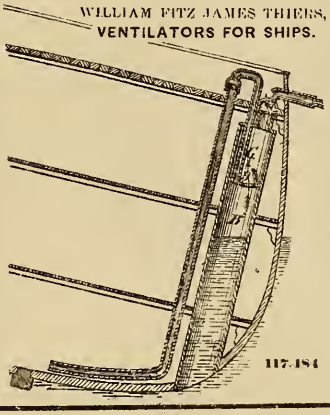
WILLIAM FITZ JAMES THIERS,
VENTILATORS FOR SHIPS.



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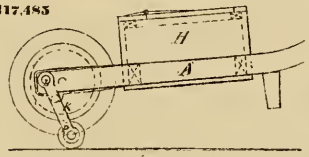
ADOLPHE TOURNIER, GARDEN-TOOLS
117,485



TOUSSAINT TRUDEAU,
GLOBES FOR GAS-LIGHTS.

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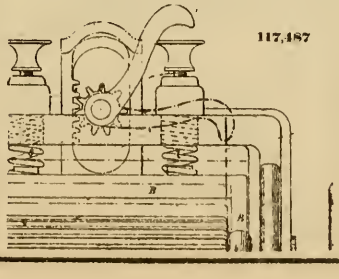
THEODORE M. TUCKER,
FLUTING-MACHINES.
117,487



THOMAS S. VAN DEVORT, WINDMILLS.
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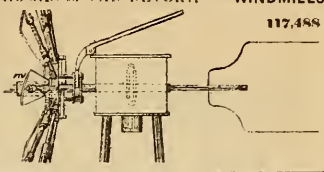

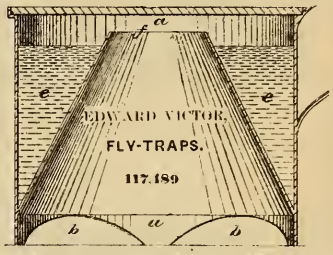

EDWARD VICTOR,
FLY-TRAPS.
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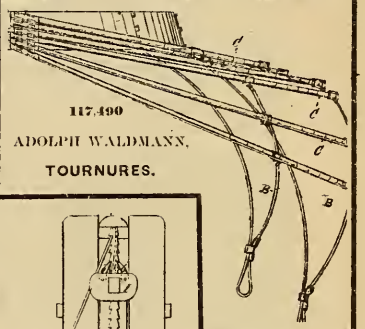

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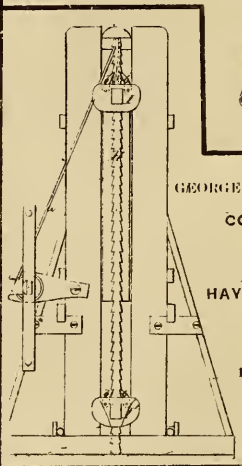
ADOLPH WALDMANN,
TOURNURES.



GEORGE P. WEBSTER,
COTTON AND HAY-PRESSES.
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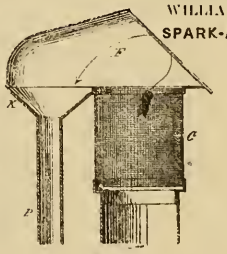
WILLIAM A. WEST,
SPARK-ARRESTERS.



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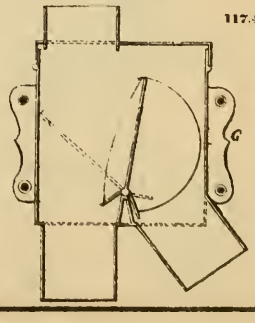
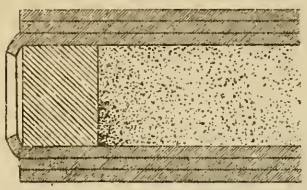
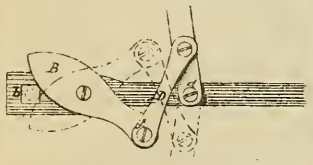
AVERY AND WETMORE,
RAIN-WATER PIPES.
117,493



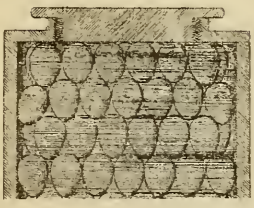
ELBRIDGE WHEELER.
REDUCING DIAMETERS OF TUBINGS.
117,494



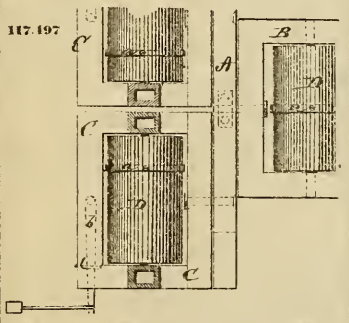
JOHN WHITTAKER.
117,495 BOLT-CUTTERS.



117,496 HENDERSON WILLARD.
TRANSPORTING EGGS.

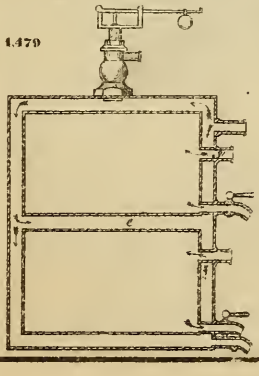


WILLIAM WIMER. LAND-ROLLERS.
117,497

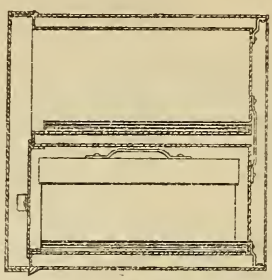


117,498 JAMES A. WOODBURY.
ELASTIC CAR-WHEELS.

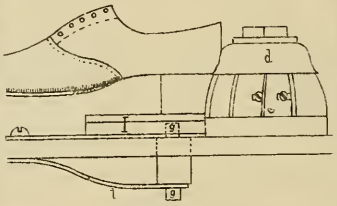
JOHN ASHCROFT. TREATING COFFEE.
4,479



4,480 JOHN ASHCROFT.
TREATING COFFEE.

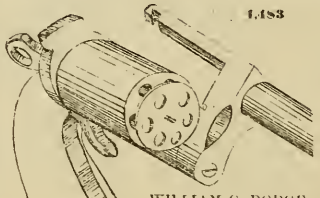


4,481 EBEN J. BEANE.
TRIMMING-MACHINES.



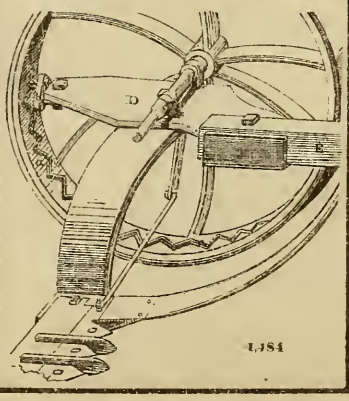
4,482 THOMAS W. BRACHER,
HAT-LININGS AND TIPS.

4,483



WILLIAM C. DODGE.
REVOLVING FIRE-ARMS.

WILLIAM F. KETCHUM. HARVESTERS.



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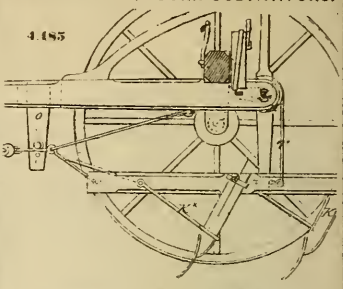
ALONZO KINYON. CORN-CULTIVATORS.
4,485



LA FAYETTE LOUIS. MELODEONS.
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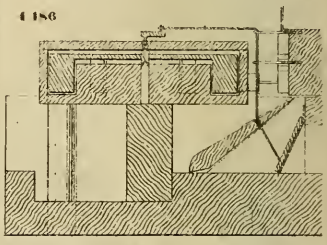
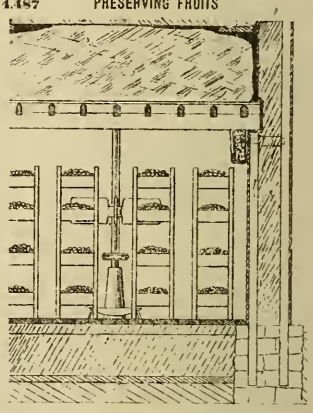
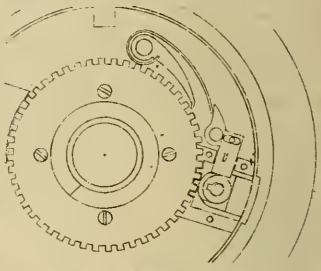


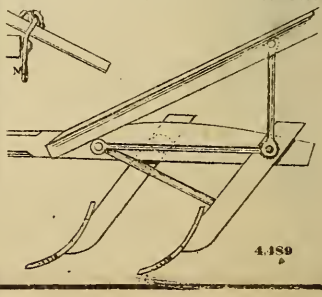
BENJAMIN MARKLEY NYCE.
4,487 PRESERVING FRUITS



4,488 GEORGE ROSNER.
PERMUTATION LOCKS.



WILLIAM S. WEIR. CULTIVATORS.



4,489

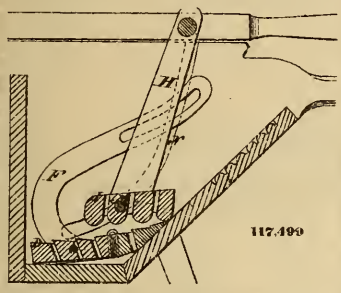
ILLUSTRATIONS OF PATENTS

ISSUED FROM

THE UNITED STATES PATENT OFFICE

AUGUST 1, 1871.

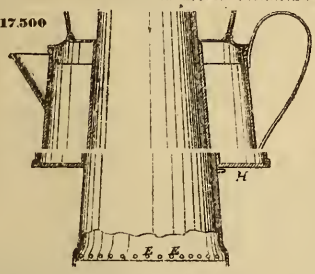
ISAAC H. ADAMS. WASHING-MACHINES.



117,499

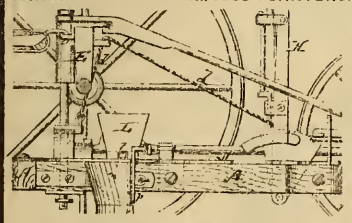
EDWARD DAVID ASHE. LAMP-CHIMNEYS.

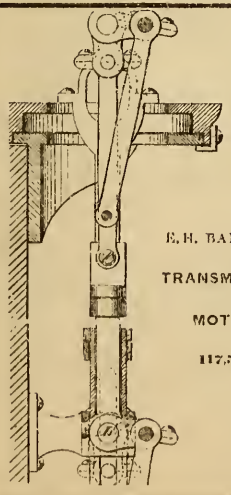
117,500



117,501 SAMUEL BABBITT. AWLS.

117,502 BARNEY BAKER. SEED-PLANTERS.





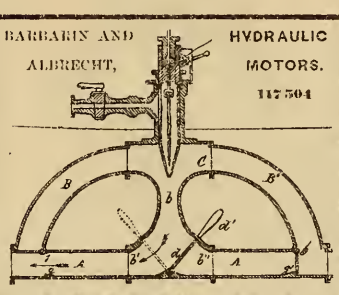
E. H. BANCROFT.

TRANSMITTING MOTION.

117,503

BARBARIN AND ALBRECHT, HYDRAULIC MOTORS.

117,504



BARBARIN AND ALBRECHT,

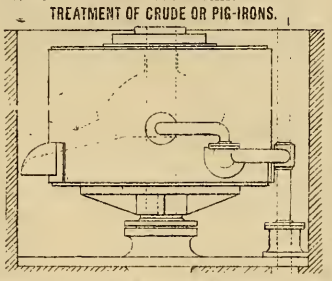
117,505 HYDRAULIC MOTORS.

SAMUEL BEATTY. HAT-VENTILATORS.

117,506

117,507 HENRY BESSEMER.

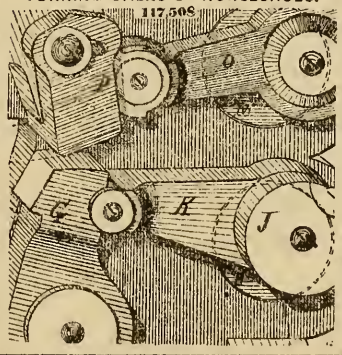
TREATMENT OF CRUDE OR PIG-IRONS.



BOON, OSBORN, AND GEER.

TURNING CALKS OF HORSESHOES.

117,508



HENRY E. BRAUNFELD

FOLDING CHAIRS.

117,509

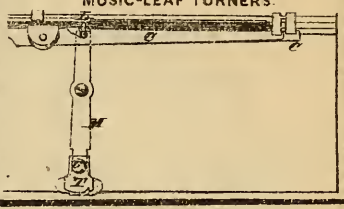
BENJAMIN F. BROWN,

POWDER-BOXES.

117,510

117,511 BUSH AND McCOMB.

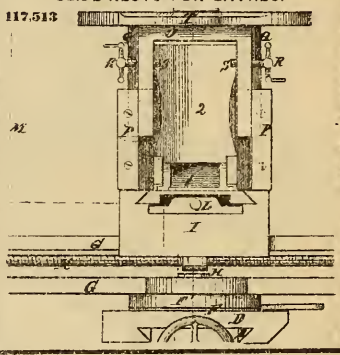
MUSIC-LEAF TURNERS.



ERNEST GEORGE CHORMANN,

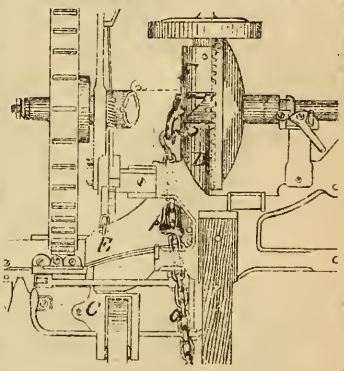
SLIDE-RESTS FOR LATHES.

117,513



117,514 CHARLES CLAPP,

IMPROVEMENT IN HARVESTERS.



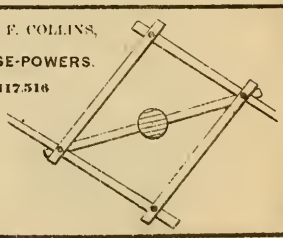
WILLIAM BAILY COATES,

117,515 SAD-IRON HOLDERS.

JOHN F. COLLINS,

HORSE-POWERS.

117,516

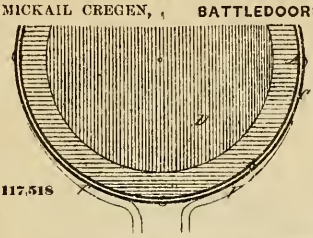


JAMES M. CONNEL,

NUT-LOCKS.

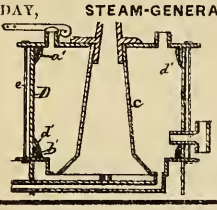
117,517

MICKAIL CREGEN, BATTLEDOORS.



117,518

EDWIN DAY, STEAM-GENERATORS.



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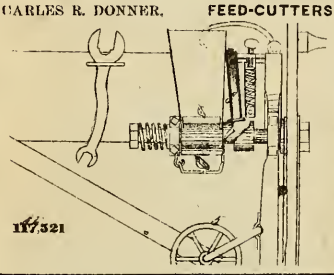
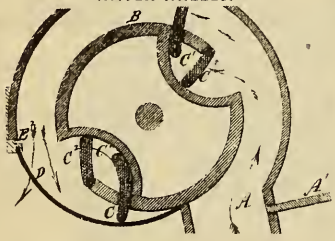
CARLES R. DONNER, FEED-CUTTERS.

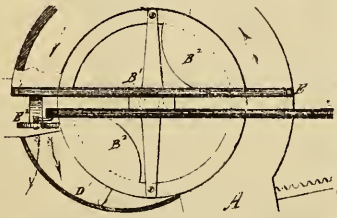


117,521

DORAN AND SORTMAN, WATER-WHEELS.

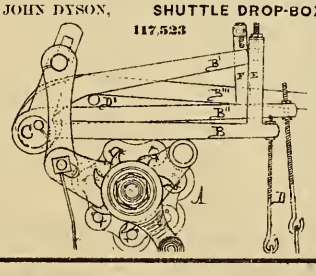


117,522

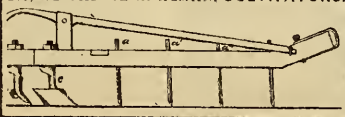


JOHN DYSON, SHUTTLE DROP-BOX

117,523

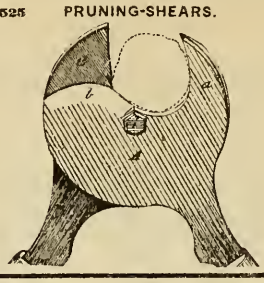


117,524 DANIEL EDELMAN, CULTIVATORS.



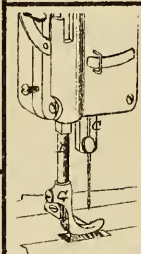
CHARLES H. EGGLESTON.

117,525 PRUNING-SHEARS.

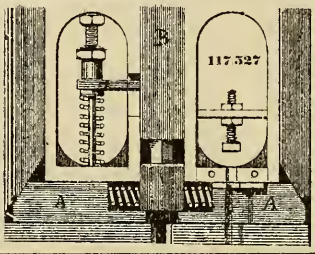


JOHN V. D. ELDREDGE, SEWING-MACHINES.

117,526



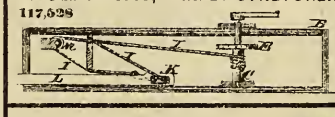
PHILIP ELEY, MACHINES FOR HEADING BOLTS.



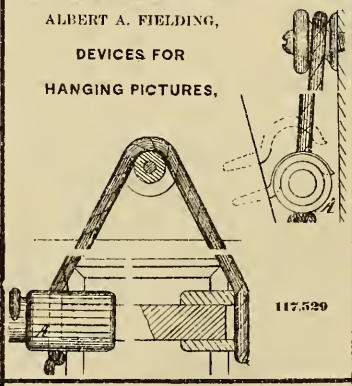
117,527

SAMUEL ELLIOTT, CARPET-STRETCHERS

117,528



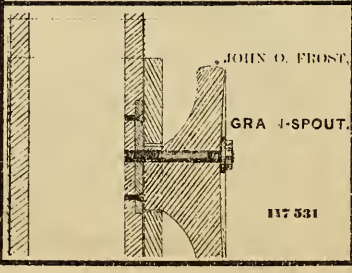
ALBERT A. FIELDING, DEVICES FOR HANGING PICTURES,



117,529

MONROE B. FOOTE, GLOVE-FASTENERS.

117,530

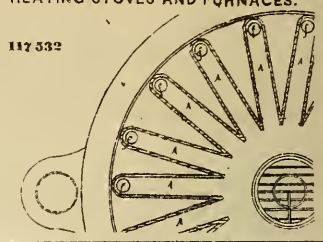


JOHN O. FROST, GRA J-SPOUT.

117,531

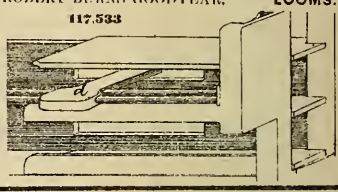
STEPHEN J. GOLD, HEATING-STOVES AND FURNACES.

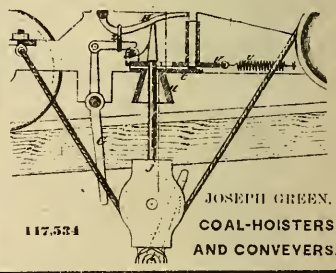
117,532



ROBERT BURNS GOODYEAR, LOOMS.

117,533

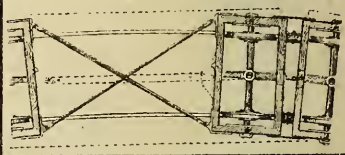




JOSEPH GREEN, COAL-HOISTERS AND CONVEYERS.

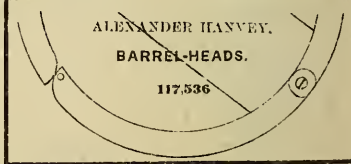
117,534

117,535 JOHN WILLIAM GROVER, ROLLING-STOCK OF RAILWAYS.



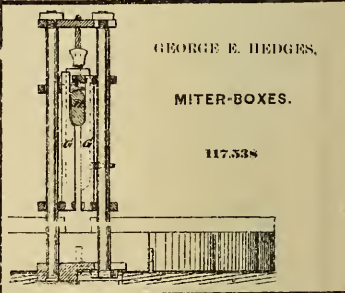
ALEXANDER HANVEY, BARREL-HEADS.

117,536

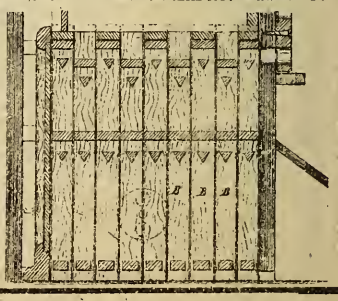


GEORGE E. HEDGES, MITER-BOXES.

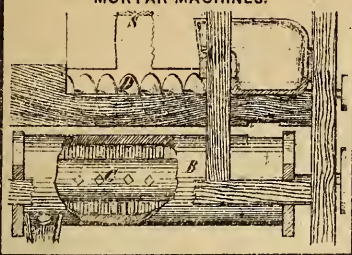
117,538



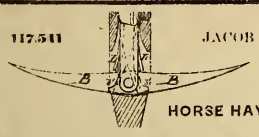
117,539 WILLIAM M. HENRY, BEE-HIVES.



117,540 SAMUEL H. HINSDELL.
MORTAR-MACHINES.

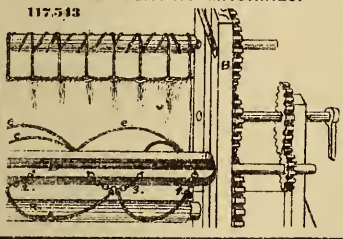


117,541 JACOB HUY.
HORSE HAY-FORKS.

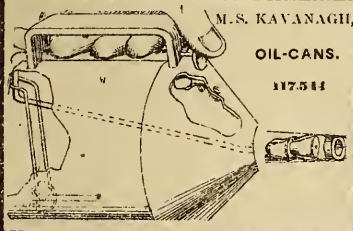


117,542 WILLIAM WHEETEN JILZ.
EARTH-BORING AUGERS.

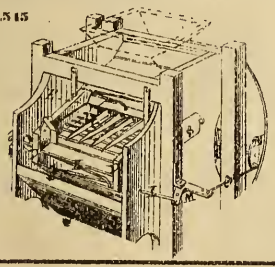
JORDAN, AND JORDAN
CARPET-BEATING MACHINES.
117,543



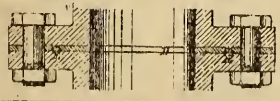
M.S. KAVANAGH,
OIL-CANS.
117,544

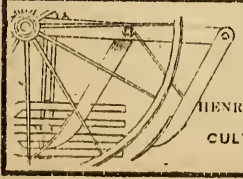


EBENEZER L. KELLY, GRAIN-SEPARATOR.
117,545



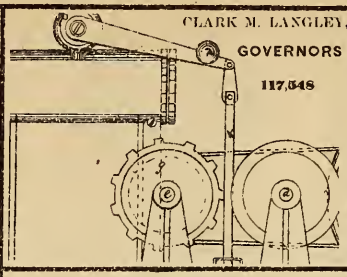
117,546 FREDERICK KIBLER,
RUBBER AND COPPER-WIRE JOINTS.

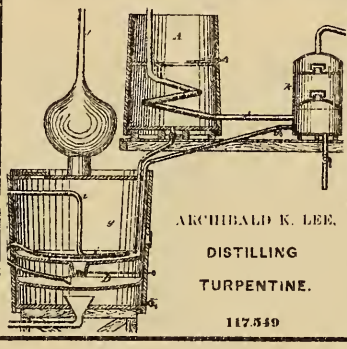




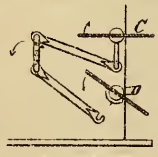
117,547
HENRY P. KYNETT,
CULTIVATORS.

CLARK M. LANGLEY,
GOVERNORS
117,548



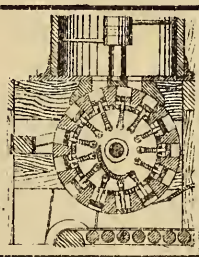


ARCHIBALD K. LEE,
DISTILLING
TURPENTINE.
117,549

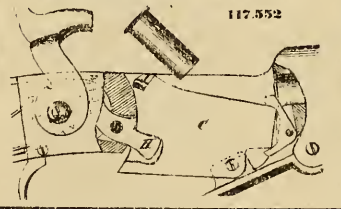


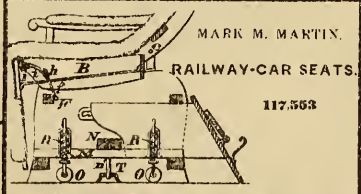
JOHN R. LOMAS,
TREMOLOS.
117,550

117,551
MACHEN
AND
MACHEN,
BRICK-MACHINES.

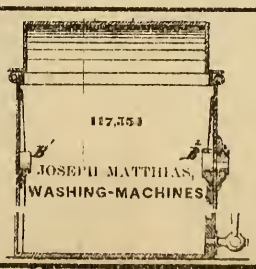


JOSEPH MANTON,
BREECH-LOADING FIRE-ARMS.
117,552



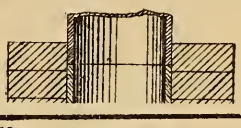


MARK M. MARTIN,
RAILWAY-CAR SEATS.
117,553

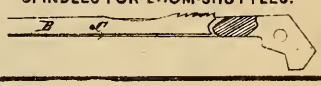


117,554
JOSEPH MATTHIAS,
WASHING-MACHINES.

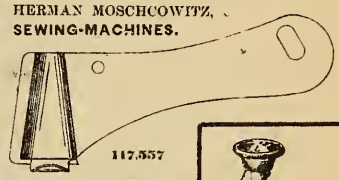
117,555 SAMUEL M. McCORD, CHIMNEYS.



117,556 ALBERT MORTON,
SPINDLES FOR LOOM-SHUTTLES.



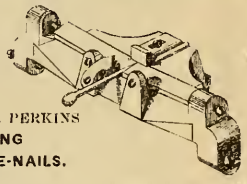
HERMAN MOSCHCOWITZ,
SEWING-MACHINES.



117,557

SAMUEL PATTERSON,
TOYS.
117,559

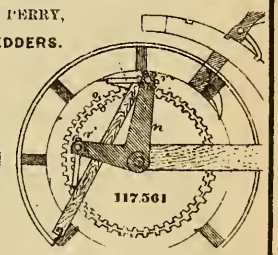
117,560



CHARLES H. PERKINS
POINTING
HORSESHOE-NAILS.

JOHN G. PERRY,
HAY-TEDDERS.

117,562



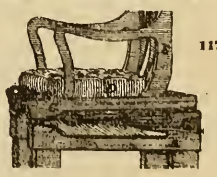
117,561

THOMAS J. PETTIT
HOSE-CLASPS.

117,563

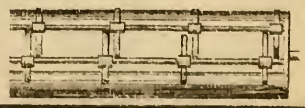
GEORGE W. PHILLIPS
BUTTONS.
117,564

JONATHAN E. PITCHER,
COMBINED CHAIRS AND BEDS.

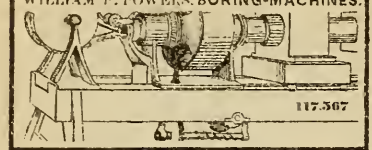


117,565

117,566 THOMAS J. PLUNKET,
GRIPERS FOR PRINTING-PRESSES.



WILLIAM P. POWERS. BORING-MACHINES.



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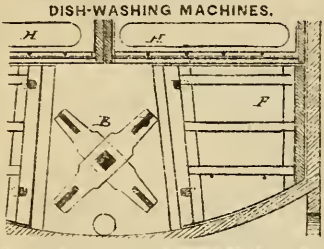
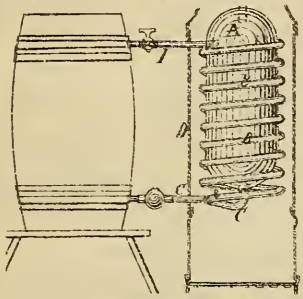
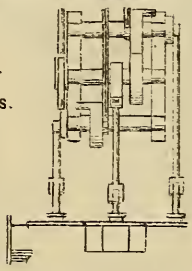
117,568 HARRIET C. ROBERTSON,
DISH-WASHING MACHINES.



HENRY M. RULON AND JESSE F. RULON,
117,569 STEAM-GENERATORS.



HORACE SEE.
VALVE-GEARS.
117,570



N. SHERMAN,
BLOW-OFF PIPES.
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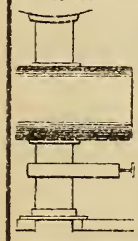

BENJAMIN F. SMITH.
VENTILATING
APPARATUS.
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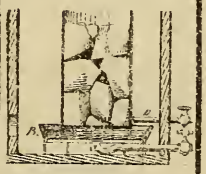
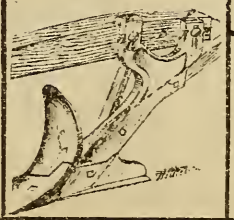
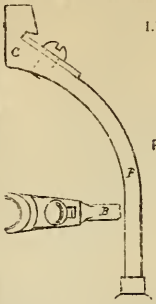


HUGO SONTAG.
ROCK-DRILLS.
117,573

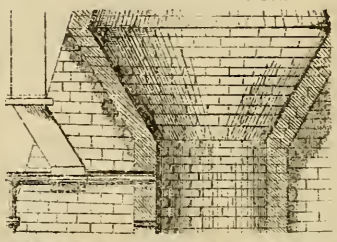
F. H. STARKE,
PLOWS.
117,574



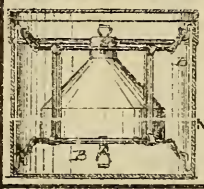
LE-ROY A. SWEATT.
TOOLS
FOR
ROUNDING LEATHER.
117,575

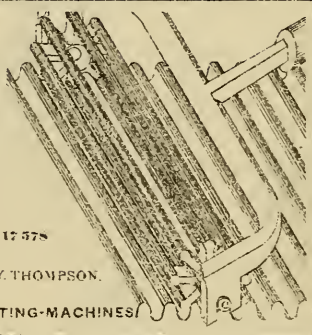


117,576 FRANCIS DANIEL TAYLOR,
MANUFACTURE OF IRON.



JACOB TAYLOR.
CANS
FOR
NITRO-GLYCERINE.
117,577





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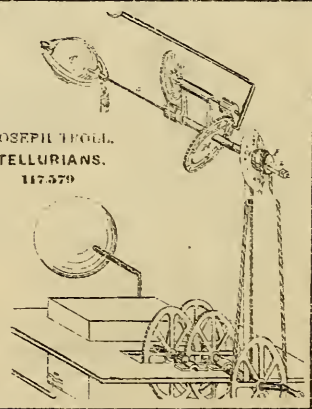
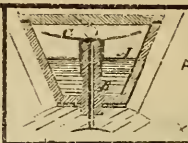
C. W. THOMPSON.
FLUTING-MACHINES.

JOSEPH TROLL.
TELLURIANS.
117,579

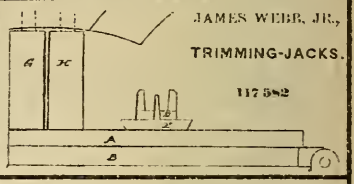


DAVID WARK.
MOVEMENT-CURE
APPARATUS.
117,580

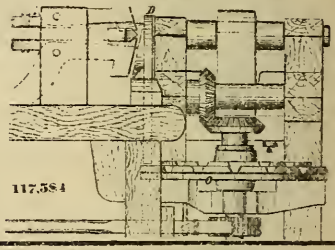
HENRY S. WEAVER.
AXLE-LUBRICATORS.
117,581



JAMES WEBB, JR.,
TRIMMING-JACKS.
117,582



HARRY A. WILLS.
POINTING HORSESHOE-NAILS.



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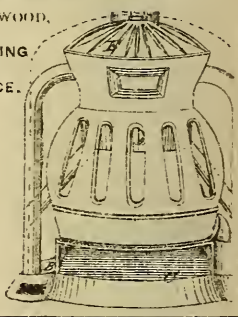
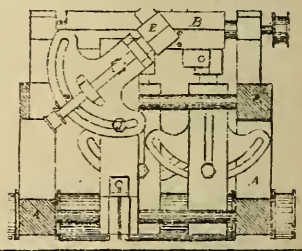
WILLIAM E. WOOD.
BASE-BURNING
FIRE-PLACE.
117,585

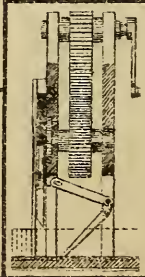


117,586 JAMES A. WOODBURY.
MOLDING-MACHINES



117,587 GEORGE W. WOODRUFF, ORGANS.

117,588 JUSTUS O. WOODS. RIPPING-TOOLS.



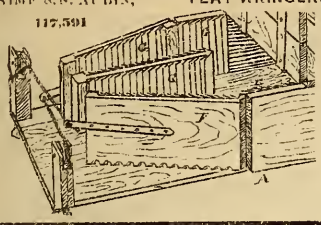
JOHN PRICE ANDERSON,
MACHINES
FOR
SLICING CANDY, &c.
117,589

GEORGE W. ANESLEY, PRUNING-SHEARS.

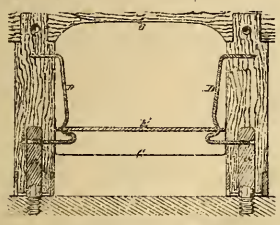
117,590

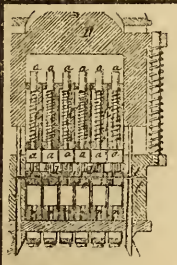
AIME N. E. AUBIN, PEAT-WRINGERS.

117,591



117,592 AMOS BACHELDER, FLAT-IRONS.





EVERETT H. BARNEY, HAND-STAMPS.

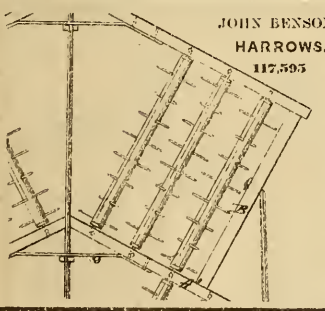
117,593

CHARLES W. BEALS, RESETTING OLD AUGER-BITS.

117,594

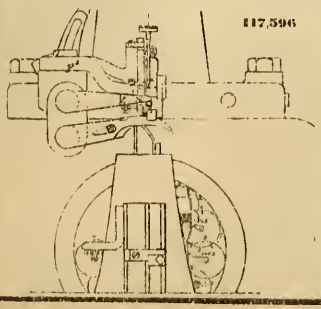
JOHN BENSON, HARROWS.

117,595



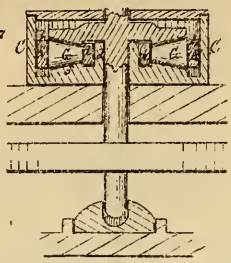
LYMAN R. BLAKE, SEWING-MACHINES.

117,596



MARTIN BRIGGS, BEARINGS FOR VERTICAL SHAFTS.

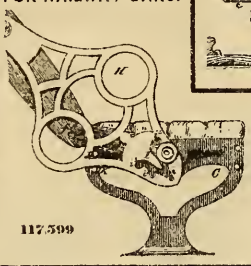
117,597



BROWN AND CAMPBELL, SIGNALING APPARATUS FOR RAILWAYS.

117,598

BUCK AND LOVETT, SEATS FOR RAILWAY CARS.



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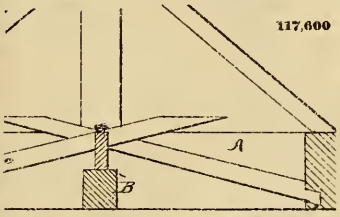
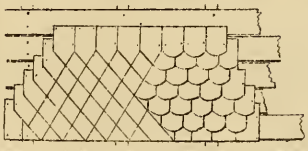
CHARLES CATON, RAILWAY CATTLE-GUARDS.

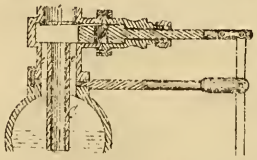
117,600



117,601 CHARLES W. CHAFFEE, WATER-PROOF ROOFINGS.

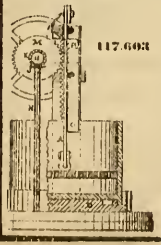


117,602 RUFUS B. CHAPMAN, DIP-PIPES OF GAS APPARATUS.



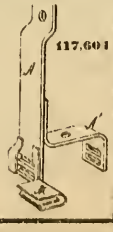
JAMES M. CLARK, WASHING MACHINES.

117,603



ASA F. COLBY, HEMMERS FOR SEWING-MACHINES.

117,604



HARRY D. COOK, METALLIC ROOFINGS.

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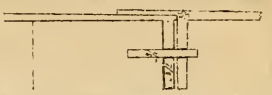
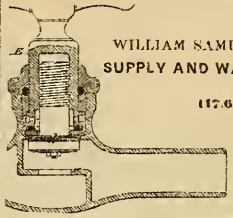


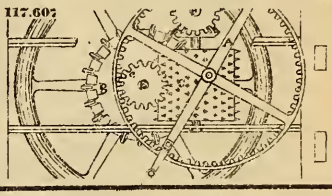
WILLIAM SAMUEL COOPER, SUPPLY AND WASTE-COCKS.

117,606

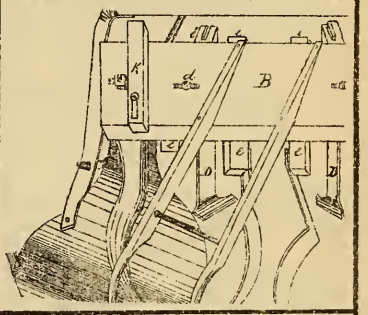


HARMON W. CORNELL, CORN-SHELLERS.

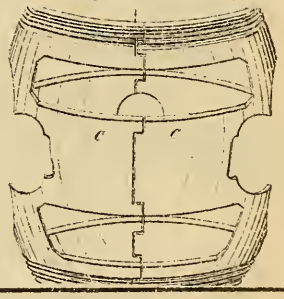
117,607



117,608 SIMON A. CUMMINS, PLOWS.

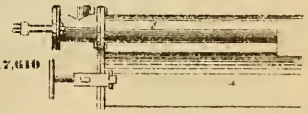


117,609 JOHN B. DAVIDS, MALLETS.

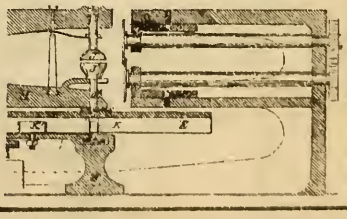


DARIUS DAVISON, GAS-RETORTS.

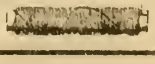
117,610



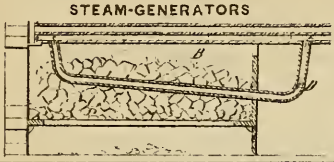
117,611 DEEDS, AND BRADWAY, CIRCULAR AND ELLIPTICAL CUTTERS.



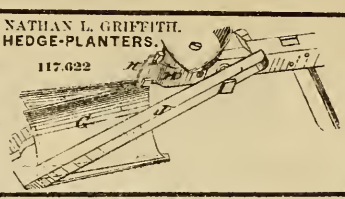
117,612 IRA DIMOCK, QUILLS FOR SILK.



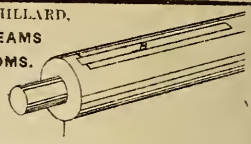
117,613 EMERY AND DOYEN, STEAM-GENERATORS



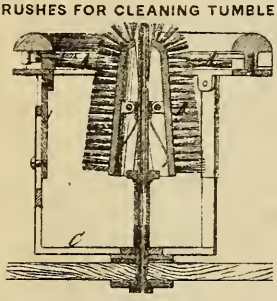
NATHAN L. GRIFFITH, HEDGE-PLANTERS. 117,622

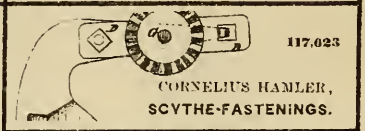


JAMES P. HILLARD, CLOTH-BEAMS FOR LOOMS. 117,630



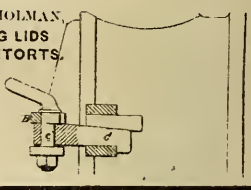
117,614 ADOLPH FISCHER, BRUSHES FOR CLEANING TUMBLERS.



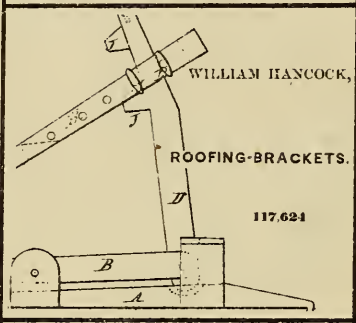


117,623 CORNELIUS HAMLER, SCYTHE-FASTENINGS.

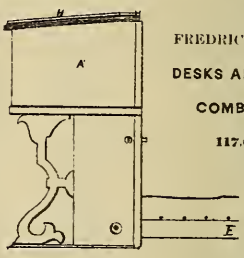
STEPHEN HOLMAN, SECURING LIDS TO GAS-RETORTS. 117,631



WILLIAM HANCOCK, ROOFING-BRACKETS. 117,624

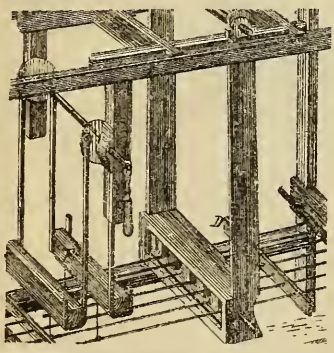


FREDRICH HOPF, DESKS AND BEDS COMBINED. 117,632

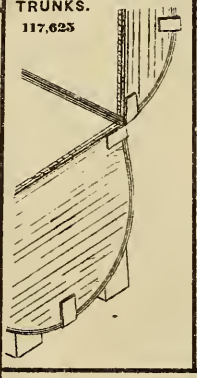


WILLIAM FORKER, REAMERS FOR OIL-WELLS. 117,615

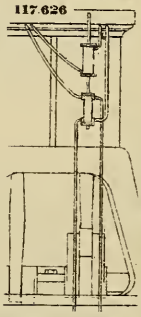
JACOB G. FRICK, LOOMS. 117,616



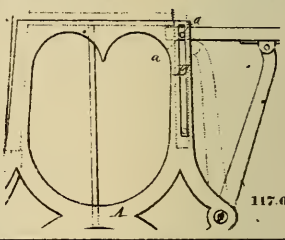
THOMAS HANVEY, TRUNKS. 117,625



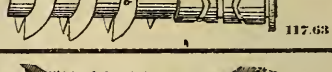
J. F. HASKINS, SUPPLYING WATER TO AIR-PUMPS. 117,626



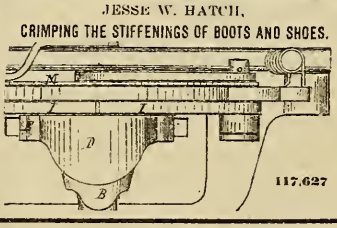
A. OGDEN HUFFMAN, SCHOOL-DESKS. 117,633



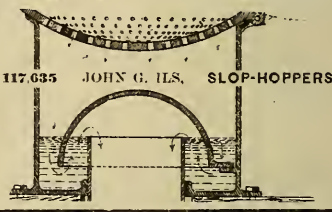
HILBERT AND AUBIN, PEAT-ELEVATORS. 117,634



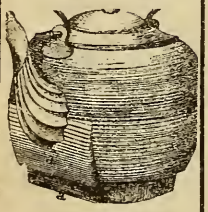
JESSE W. HATCH, CRIMPING THE STIFFENINGS OF BOOTS AND SHOES. 117,627



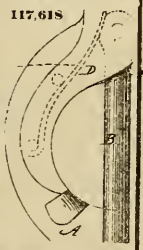
117,635 JOHN G. ILS, SLOP-HOPPERS.



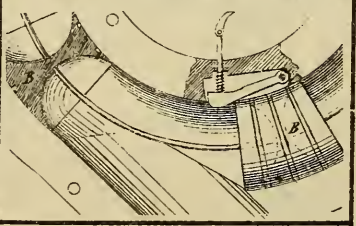
JOHN GIBSON, JR., TEA-KETTLES. 117,617



IVES GLOVER, OX-BOW PINS. 117,618

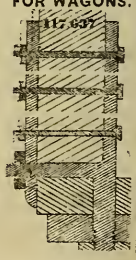


117,628 HENRY B. HEBERT, FLUID-METERS.



EDMUND JENNINGS, WASHING-MACHINES. 117,636

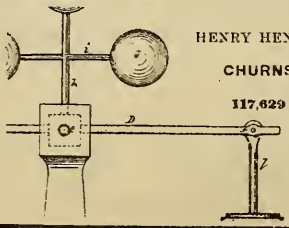
JENS JENSEN, STANDARDS FOR WAGONS. 117,637



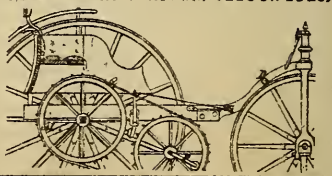
HENRY I. GODWIN, DASH-BOARDS 117,619

W. M. GREEN, RAZOR-STROPS. 117,621

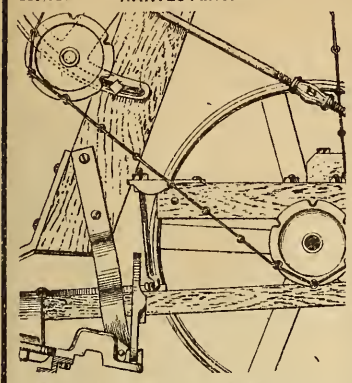
HENRY HENSEL, CHURNS. 117,629

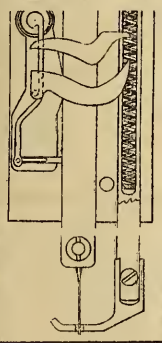


117,638 SIDNEY JOHNSON, VELOCIPEDES.



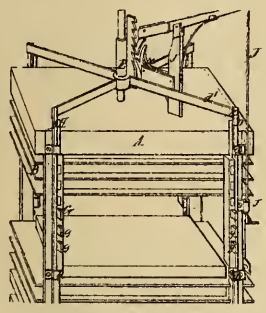
WILLIAM NEVINS JOHNSON,
117,639 HARVESTERS.



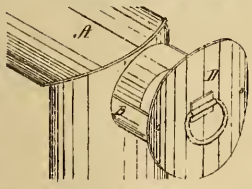


JOHN T. JONES,
SEWING-MACHINES.
117,640

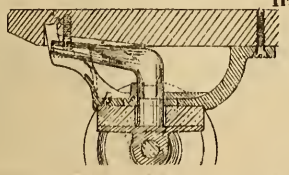
AGUR JUDSON,
OIL-PRESSES.
117,641



JAMES F. KELLOGG,
STOVE-PIPE CLEANERS.
117,642

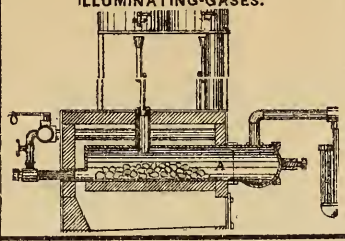


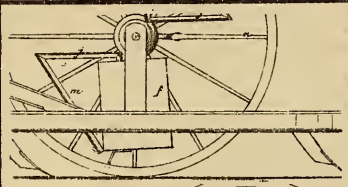
DAVID KERR AND ASA E. HOVEY,
PARLOR-SKATES.
117,643



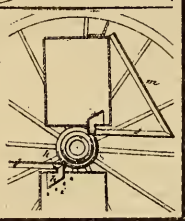
JOHN KIMBALL,
TENSION APPARATUS.
117,644

FERDINAND KING, 117,645
MANUFACTURE OF
ILLUMINATING-GASES.



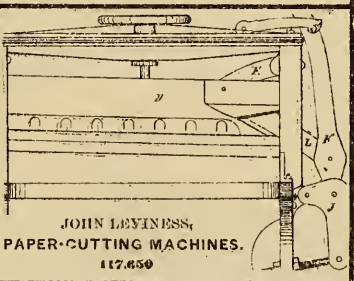


JAMES A. KNETZER,
CORN-PLANTERS.
117,646



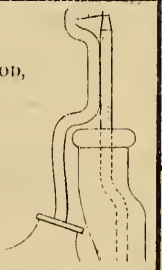
GUSTAV LIEBERKNECHT,
APPARATUS
FOR ARRANGING HAIRS.
117,648

AUGUSTUS S. LESUER,
BLIND-FASTENINGS.
117,649

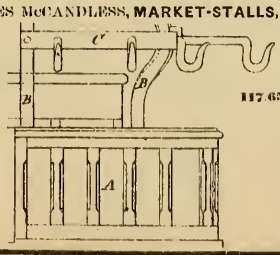


JOHN LEYINESS,
PAPER-CUTTING MACHINES.
117,650

HAMILTON D. LOCKWOOD,
ATOMIZERS.
117,651



JAMES McCANDLESS, MARKET-STALLS, &c.



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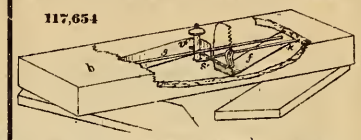
ANDREW McFALL,
BOOK-HOLDERS AND LEAF-TURNERS.
117,654



JOHN McGOWAN, ROTARY ENGINES.
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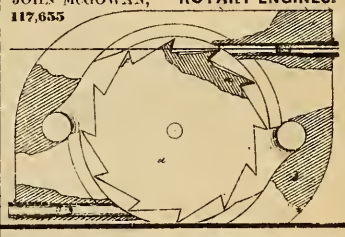
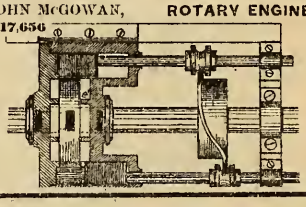
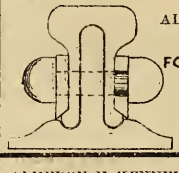


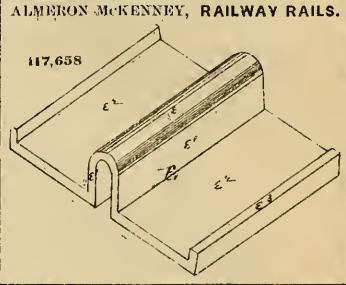
JOHN McGOWAN, ROTARY ENGINES.
117,656



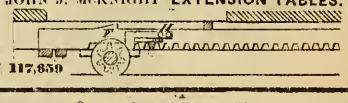


ALMERON McKENNEY,
DEVICES
FOR LOCKING-BOLTS.
117,657

ALMERON McKENNEY, RAILWAY RAILS.
117,658



JOHN J. McKNIGHT EXTENSION TABLES.



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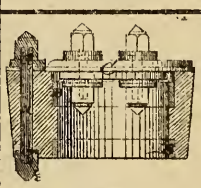
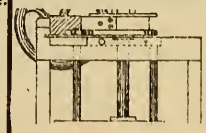
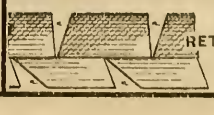


DAVID METZ,
PUMP-VALVES.
117,661

JAMES G. MINER,
PLOWS.
117,662



LEVI E. MINOTT,
WOOD-BENDING
MACHINES.
117,663



LEVI E. MINOTT,
RETAINING-STRAPS
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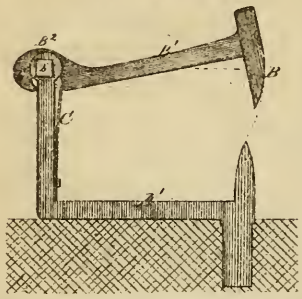
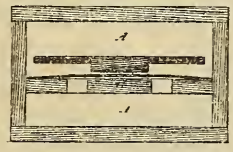
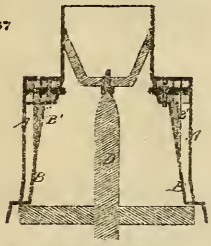
CHARLES F. MOORE, 117.665
BLACKSMITHS' HARDIES.



117.666 ELIAS P. NEEDHAM, TREMOLO.



NORDYKE AND MARMON,
GRINDING-MILLS.
117.667



NORDYKE AND MARMON,
GRINDING-MILLS.
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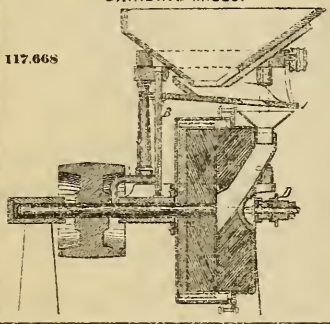
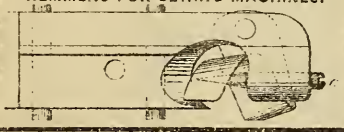


117.669 THOMAS K. OBER,
HEMMERS FOR SEWING-MACHINES.



CHARLES M. O'HARA,
CORN-HUSKERS.
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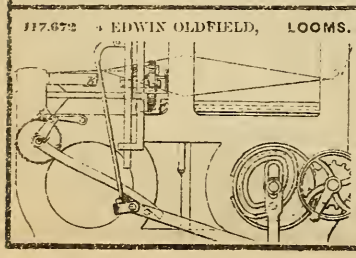
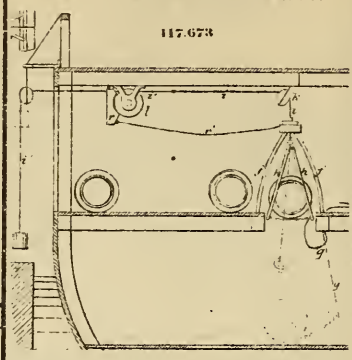
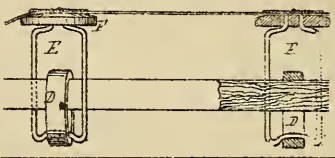
117.672 EDWIN OLDFIELD, LOOMS.

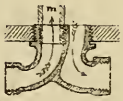


FRANCIS PATERSON,
APPARATUS FOR LOADING SHIPS.
117.673



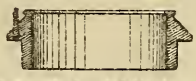
117.674 CHARLES E. PATRIC,
UPHOLSTERY SPRINGS.





JOHN L. PEAKE,
STEAM-HEATERS.
117.675

HORATIO L. PEIRCE, SPINNING-RINGS.



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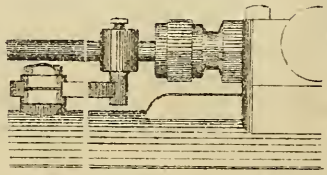
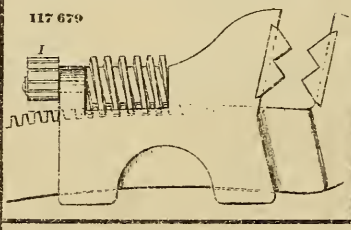
117.677 DAVID PFOUTS, FILE-HANDLES.

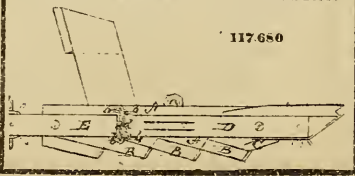
117.678 GEORGE PHILLIPS,
ROCK-DRILLING ENGINES.



GEORGE E. PHILLIPS, WRENCHES.
117.679



JOHN W. POLLOCK,
CLOD-CRUSHERS AND PULVERIZERS.
117.680



NEHEMIAH REECE,
MACHINES FOR CLEANING GRAIN.
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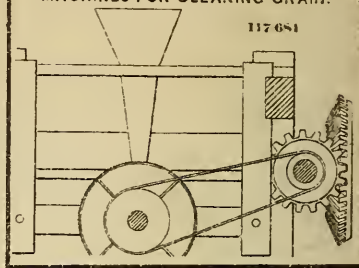

CHARLES B. RICHARDS,
BEARINGS FOR MACHINERY.
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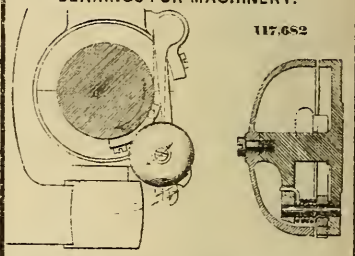
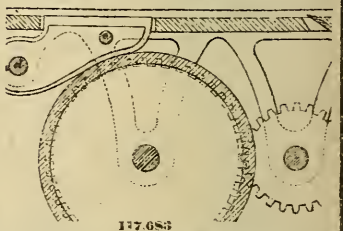
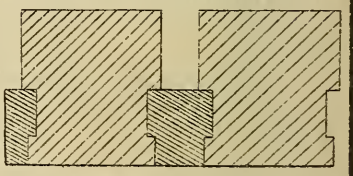


WILLIAM RIDDELL,
DISINTEGRATING VEGETABLE FIBERS.



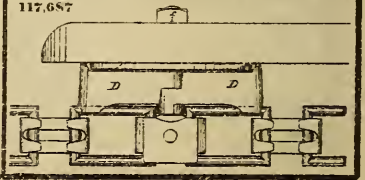
117.683

117.685 EDWARD A. L. ROBERTS,
WOOD AND CONCRETE PAVEMENTS.

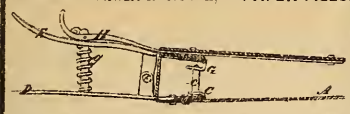


ROOK, ROOK, AND ROOK,
MACHINES FOR TENONING SPOKES.
117.686

JOHN M. ROSEBROOK, HARVESTER-RAKES
117.687

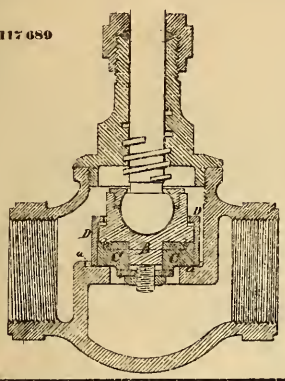


117,688 GEORGE ROWE, PAPER-FILES.



EDMUND RUSSELL, STOP-VALVES.

117,689



WILLIAM K. SAWYER, BEE-HIVES.

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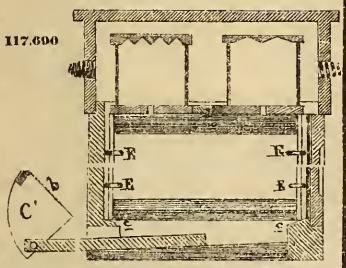

NATHANIEL SEBNER, SPRING-HINGES.

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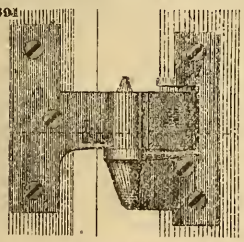

JOHN F. SEIBERLING, HARVESTERS.

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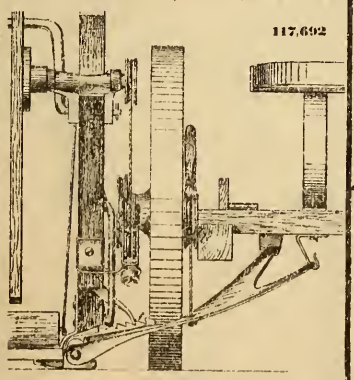
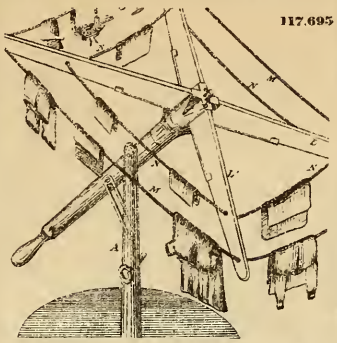


JOHN E. SMITH, SLIDES FOR SUSPENDERS.

117,694

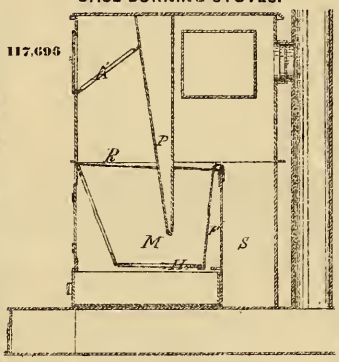
EDWARD E. STEDMAN, CLOTHES-DRIERS.

117,695

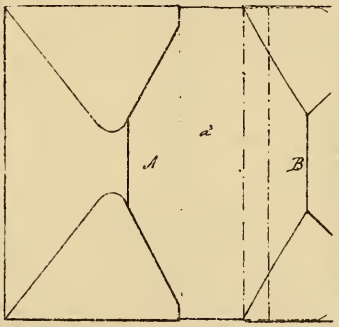


JAMES W. TEFFT, BASE-BURNING STOVES.

117,696



117,697 MORTIMER THOMSON, BOOK-COVER PROTECTORS.



FREDERICK O. TUCKER, WEFT STOP-MOTIONS.

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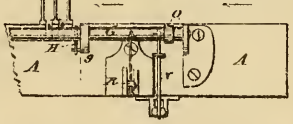

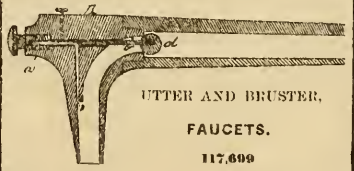

UTTER AND BRUSTER, FAUCETS.

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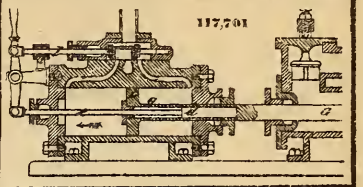
117,700 VALLELEY AND WISE, SAFETY-SHAFT COUPLINGS.

HERBERT VOSPER, STEAM-ENGINES.

117,701



FREDRIK WAHLFELT, DRILL-BAYONETS.

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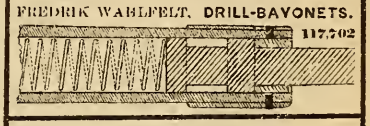
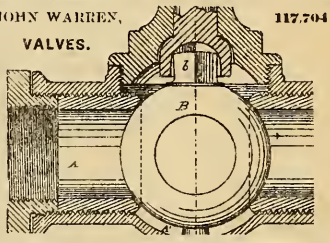


117,703 ALBION K. P. WALKER, WATCHMAKERS' CHUCKS.

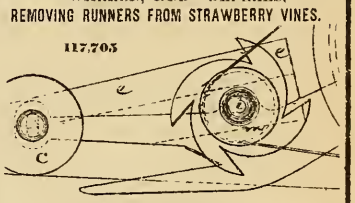
JOHN WARREN, VALVES.

117,704



WARREN, AND DEFREES, REMOVING RUNNERS FROM STRAWBERRY VINES.

117,705



THEOPHILUS WEAVER, SPHERICAL GEARS.

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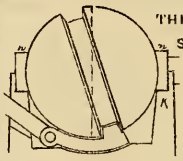
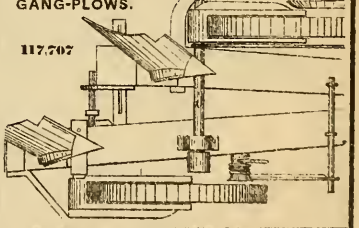


LEWIS T. WEBSTER, GANG-PLOWS.

117,707



ELLIOTT P. WEST, SEWING-MACHINES.

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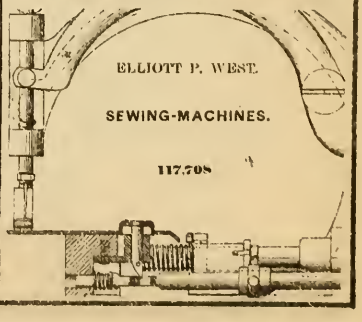

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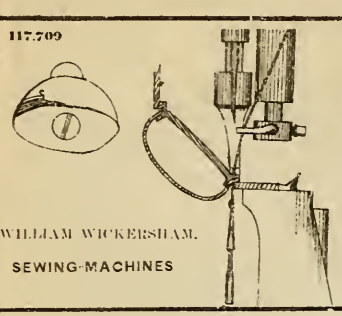

WILLIAM WICKERSHAM.
SEWING-MACHINES

JOHN GOETZ. FANNING-MILLS.

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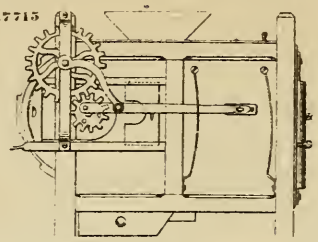
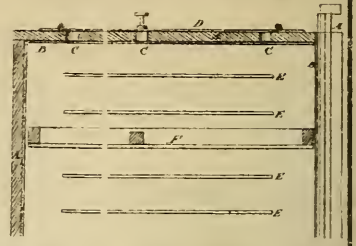


JOHN P. MILLER. FRUIT-DRIERS.



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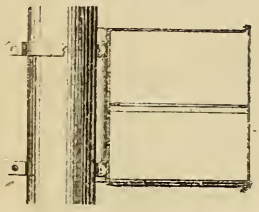
117,710 ROSWELL D. WILCOX,
STOVE-PIPE OVENS.



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WAGON-TONGUE SUPPORTS.
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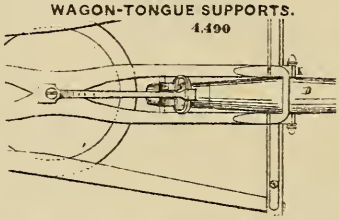

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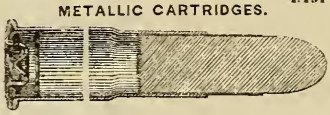
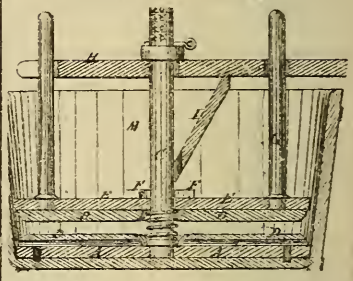
MORRIS, AND BROWN,
REPEATING FIRE-ARMS.

HIRAM BERDAN, 4,491
METALLIC CARTRIDGES.



4,497 PALMER AND COVENTRY.
WASHING-MACHINES.



SAMUEL A. WORTHEN. GANG-PLOWS.

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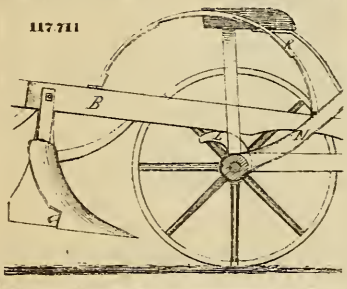
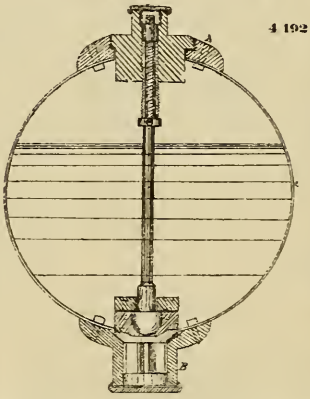
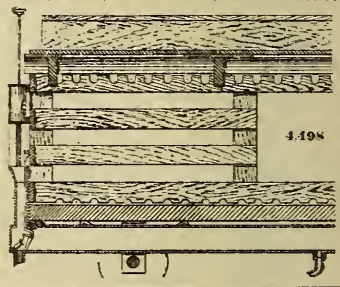


WILLIAM J. BRUNDRED.
OIL-TANKS AND RESERVOIRS.
4,492



RANK, KING, AND SHARP. STOCK-CARS.



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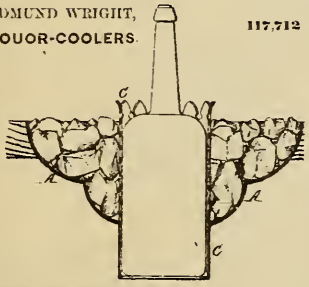
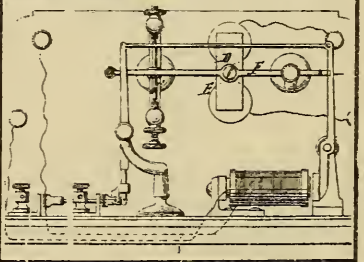
EDMUND WRIGHT,
LIQUOR-COOLERS. 117,712



THOMAS S. HALL. 4,493
DOUBLE-CIRCUIT INSTRUMENTS FOR RAILROAD SIGNALS.



LYMAN WIGHT, GRAIN-DRILLS.
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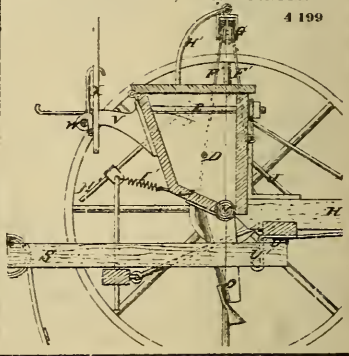
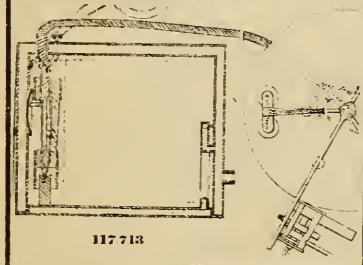


WILLIAM DUNCAN. SAFE-PROTECTORS.



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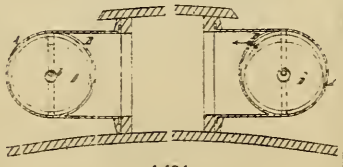
MARCUS T. HITCHCOCK,
RAILROAD-CAR VENTILATORS.



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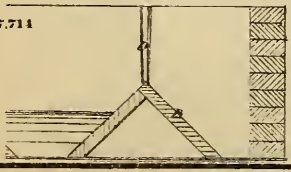
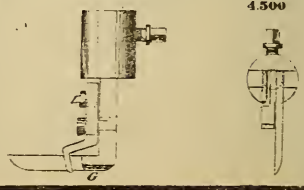
McPHEETERS AND PEARCE,
MANUFACTURE OF COKE.

117,714



ALFRED S. WOODWARD, STITCH-DIVIDERS.
4,500



ILLUSTRATIONS OF PATENTS

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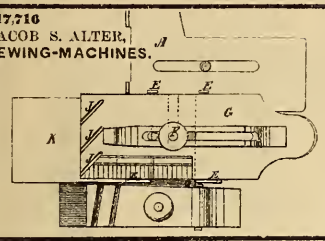
AUGUST 8, 1871.

117,716
JACOB S. ALTER,
SEWING-MACHINES.



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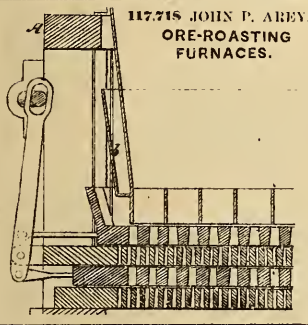
JOHN R. ANDERSON,
FOG-HORNS.

117,718 JOHN P. AREY,
ORE-ROASTING FURNACES.



117,719 LEVI ARNOLD,
FISH-HOOK HOLDERS.

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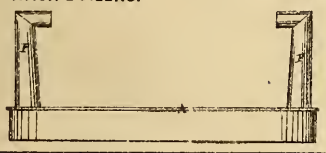
ISAAC ATYCO,
WASH-BOILERS.



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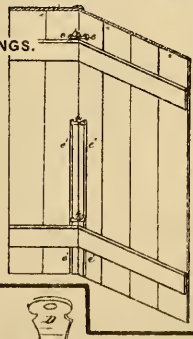
FRANCIS M. BAIN,
PORTABLE BUILDINGS.



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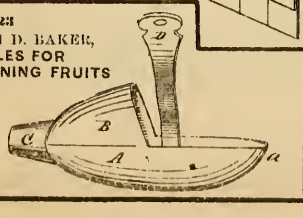
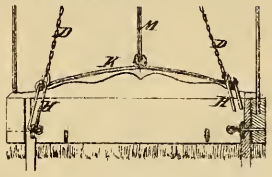
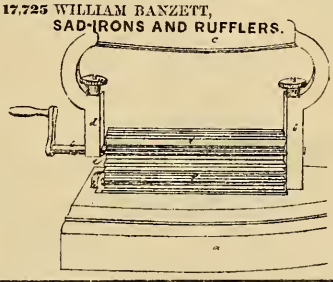
RUSH D. BAKER,
LADLES FOR CANNING FRUITS



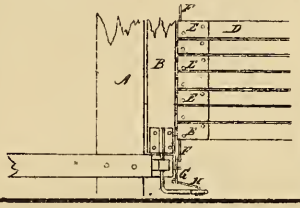
117,724 THOMAS B. BALDWIN,
BEDSTEADS.

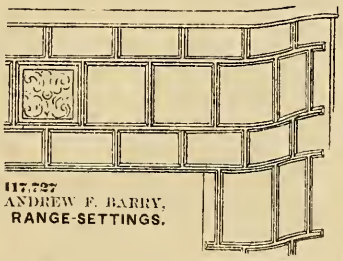


117,725 WILLIAM BANZETT,
SAD-IRONS AND RUFFLERS.



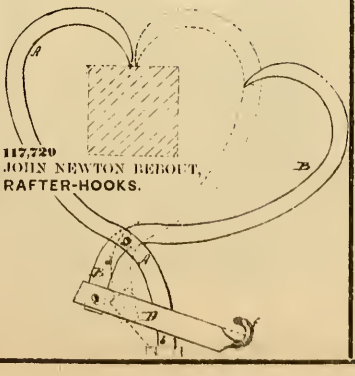
117,726 HARVESTER-DROPPERS.
J. J. BARNHILL AND D. N. BARNHILL





117,727
ANDREW F. BARRY,
RANGE-SETTINGS.

117,728
AURELIA W. BEAMAN,
SHOULDER-BRACES.



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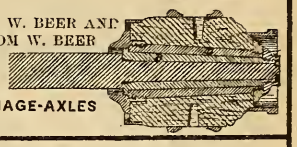
RAFTER-HOOKS.

117,730
JOSEPH W. BEER AND
ABSALOM W. BEER
CARRIAGE-AXLES



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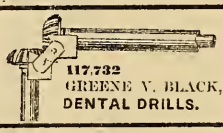
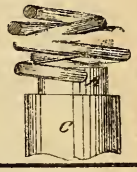


117,732
GREENE V. BLACK,
DENTAL DRILLS.

117,733
GREENE V. BLACK,
UNIVERSAL JOINTS



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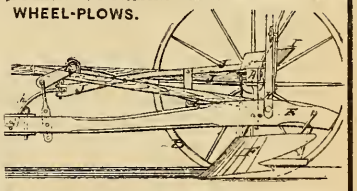
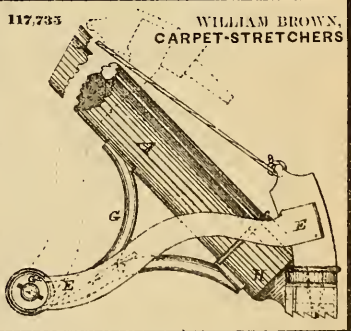
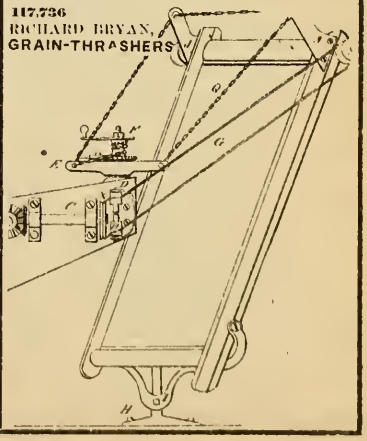
ANDREW J. BORLAND
WHEEL-PLOWS.



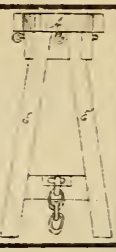
117,735 WILLIAM BROWN,
CARPET-STRETCHERS



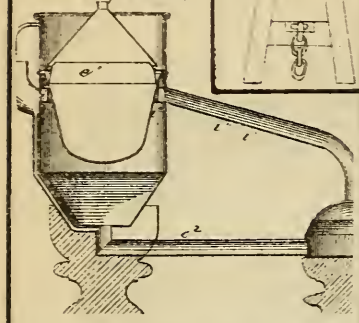
117,736
RICHARD BRYAN,
GRAIN-THRASHERS



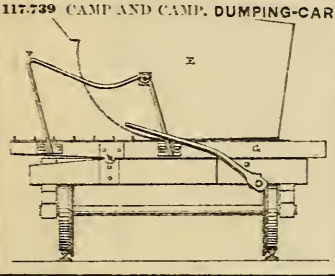
117,737 FRANK A. BYRAM, IRONING-TABLES.



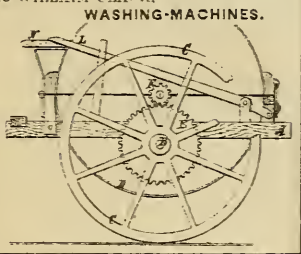
117,738 BUCKLAND, AND GESSNER, PHARMACEUTICAL STILLS.



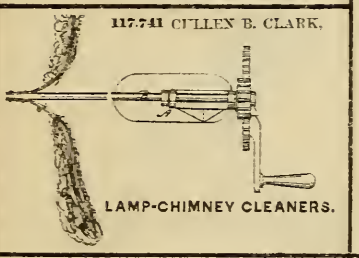
117,739 CAMP AND CAMP, DUMPING-CAR



117,740 WILLIAM CLACK, WASHING-MACHINES.

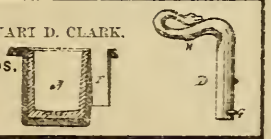


117,741 CULLEN B. CLARK, LAMP-CHIMNEY CLEANERS.

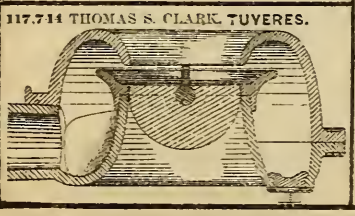


117,742 ISAAC CLARK, TRACE-BUCKLES.

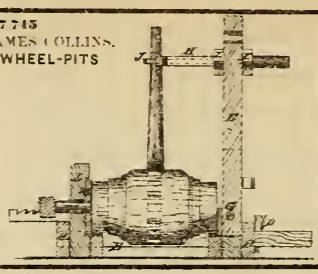
117,743 STUART D. CLARK, INKSTANDS.



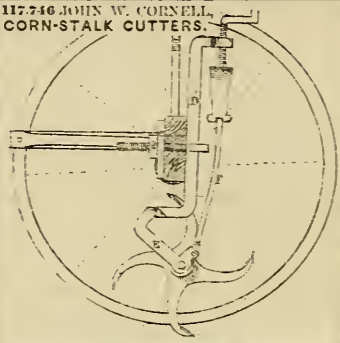
117,744 THOMAS S. CLARK, TUYERES.



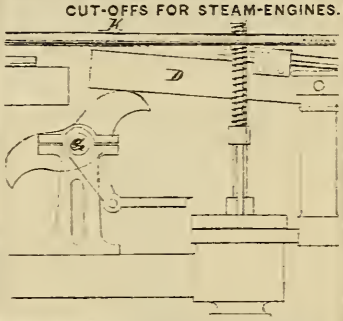
117,745 JAMES COLLINS, WHEEL-PITS



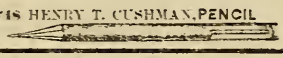
117,746 JOHN W. CORNELL, CORN-STALK CUTTERS.



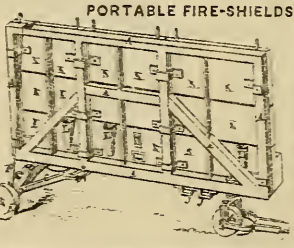
117,747 WILLIAM B. CROSS, CUT-OFFS FOR STEAM-ENGINES.



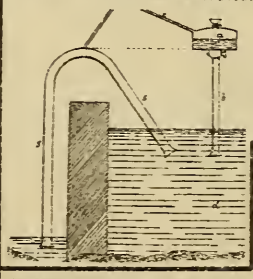
117,748 HENRY T. CUSHMAN, PENCIL



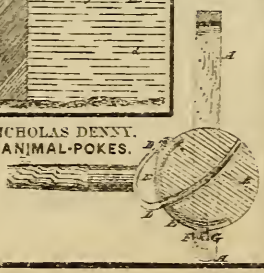
117,749 AARON DEAN, PORTABLE FIRE-SHIELDS.



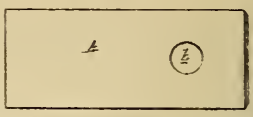
117,750 EDOUARD DE LAGILLARDAIE, SUCTION-SIPHONS.



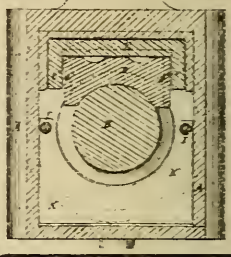
117,751 NICHOLAS DENNY, ANIMAL-POKES.



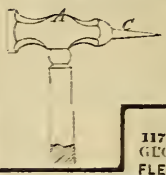
117,752 DOWLING AND CONE, RAFTING-DOGS.



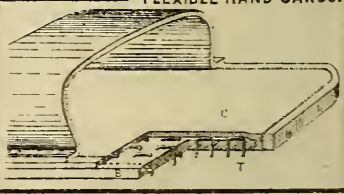
117,753 ISAAC DRIPPS, RAILWAY JOURNAL-BOXES.



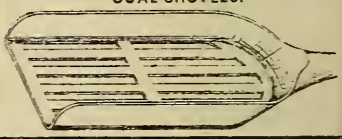
117,754 ICE-PICKS. WILLIAM T. EAMES.



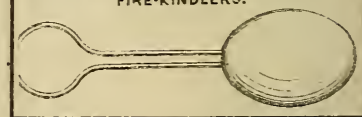
117,755 GEORGE F. ELLS, FLEXIBLE HAND-CARDS.



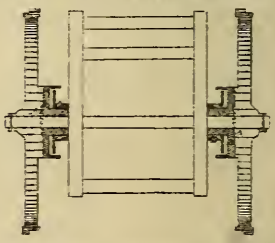
117,756 JOHN H. FARMER, COAL-SHOVELS.



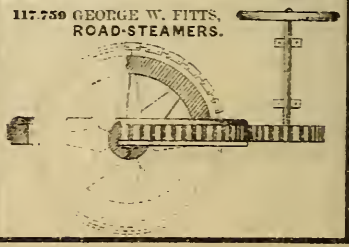
117,757 FINLEY, HURD, AND TATEM, FIRE-KINDLERS.



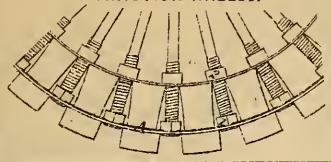
117,758 LEMUEL SCUDDER FITHIAN, CLUTCH-GEARINGS.



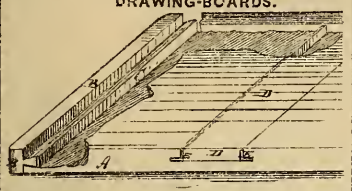
117,759 GEORGE W. FITTS, ROAD-STEAMERS.



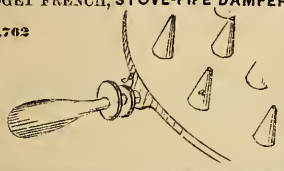
117,760 GEORGE W. FITTS,
TRACTION-WHEELS.



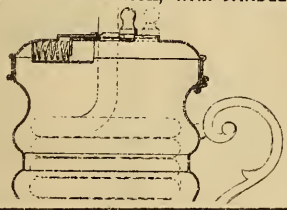
117,761 JOHN B. FRANKLIN,
DRAWING-BOARDS.



BRIDGET FRENCH, STOVE-PIPE DAMPERS.
117,762

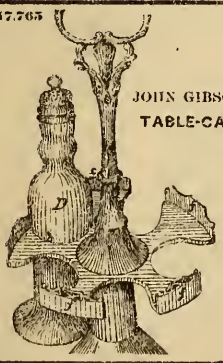


117,763 JOSEF FRITSCH, WAX CANDLES



117,764
CHARLES T. GIBSON,
LOCKS FOR
RAILROAD CARS.

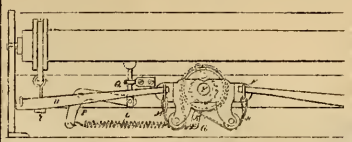
117,765
JOHN GIBSON, JR.,
TABLE-CASTERS.



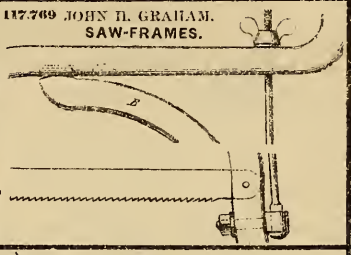
117,766 JOHN GIBSON, JR.,
SAUCERS, DISHES,

117,767 WELLER S. GILMORE,
SAP-SPOUTS.

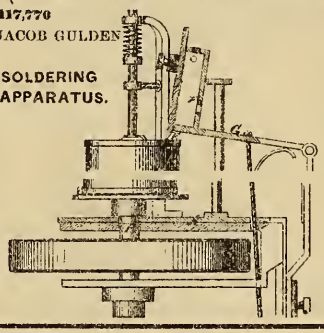
117,768 FREDERICK W. GRAICHEN
LET-OFF MECHANISMS FOR LOOMS.



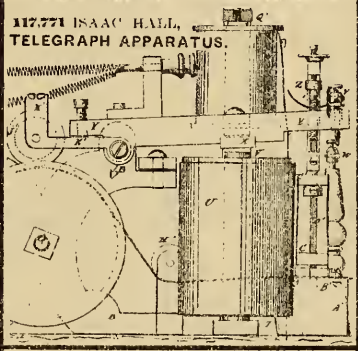
117,769 JOHN H. GRAHAM.
SAW-FRAMES.



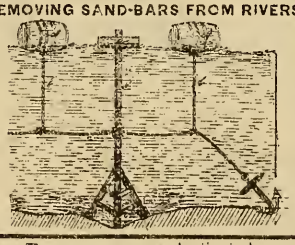
117,770
JACOB GULDEN
SOLDERING
APPARATUS.

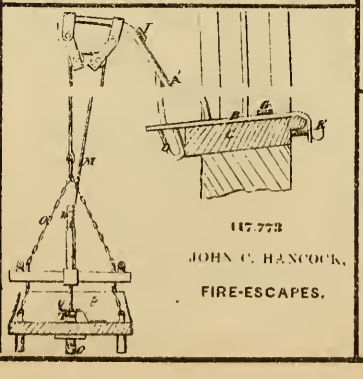


117,771 ISAAC HALL,
TELEGRAPH APPARATUS.



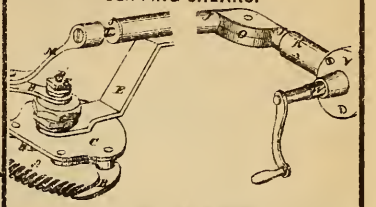
117,772 JOHN HALLIDAY,
REMOVING SAND-BARS FROM RIVERS



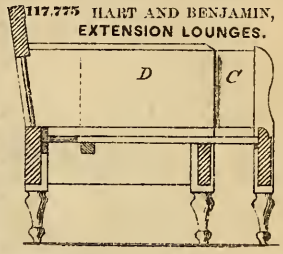


117,773
JOHN C. HANCOCK,
FIRE-ESCAPES.

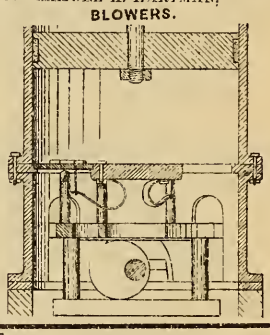
117,774 CHARLES F. HARLOW.
CLIPPING-SHEARS.



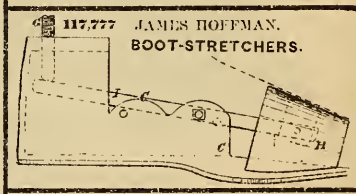
117,775 HART AND BENJAMIN,
EXTENSION LOUNGES.



117,776 SAMUEL H. HARTMAN,
BLOWERS.



117,777 JAMES HOFFMAN.
BOOT-STRETCHERS.



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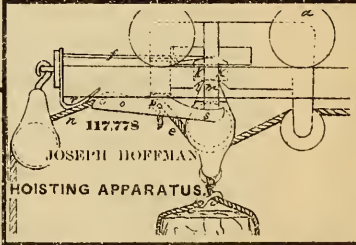
JOSEPH HOFFMAN
HOISTING APPARATUS.



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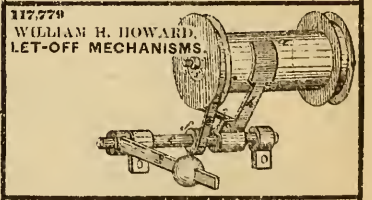
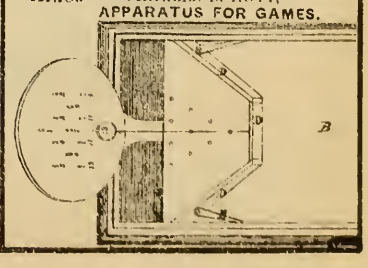
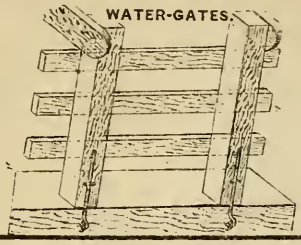
WILLIAM H. HOWARD,
LET-OFF MECHANISMS.



117,780 CHARLES N. HOYT,
APPARATUS FOR GAMES.



117,781 WILLIAM PENN HUBBARD.
WATER-GATES.



DEFECATING AND BLEACHING CANE-JOICE,
MARCELIN LANDRY,
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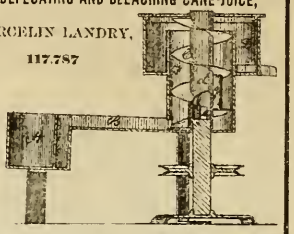
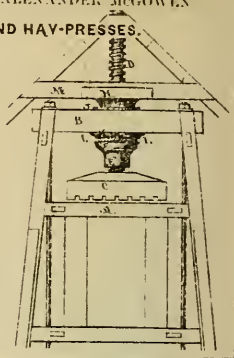
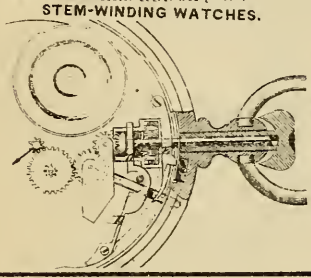


117,791 ALEXANDER McGOWEN
COTTON AND HAY-PRESSES.



117,782 JACCARD AND JAQUES.
STEM-WINDING WATCHES.



117,788 JOHN R. LOMAS
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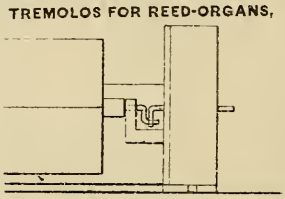

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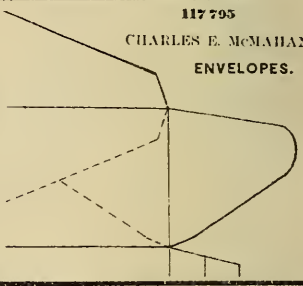
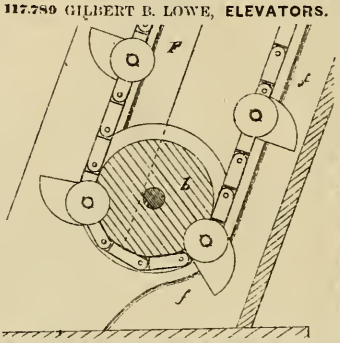
CHARLES E. McMAHAN,
ENVELOPES.



117,789 GILBERT B. LOWE, ELEVATORS.



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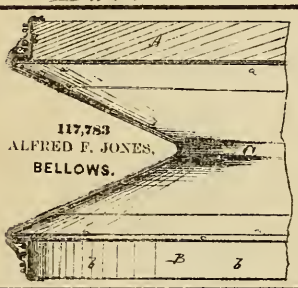
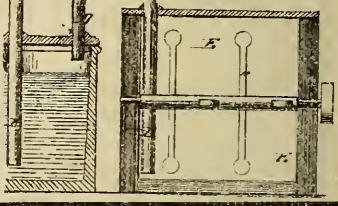
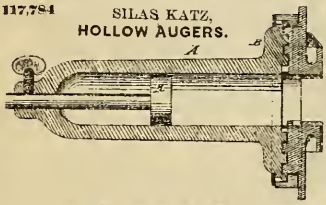
ALFRED F. JONES,
BELLOWS.



117,796 LEOPOLD MENDELSON,
BLEACHING FABRICS.



117,784 SILAS KATZ,
HOLLOW AUGERS.



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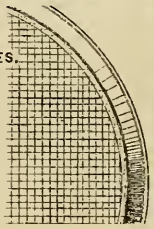
ROBERT J. MANN,
CONSTRUCTING SIEVES.



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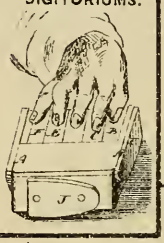
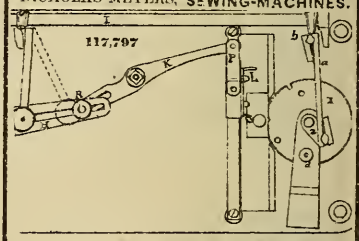
MYER MARKS,
DIGITORIUMS.



NICHOLAS MEYERS, SEWING-MACHINES.
117,797



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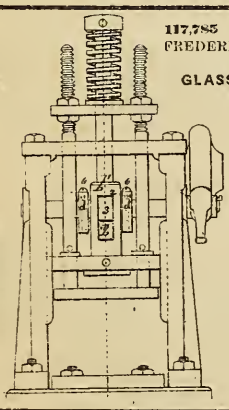
FREDERICK KLINCK,
GLASS-MOLDERS' PRESSES.



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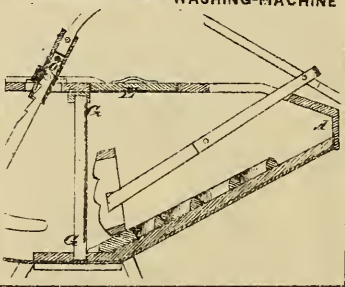
THOMAS A. MASSIE,
WASHING-MACHINE



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JAMES S. MILLER,
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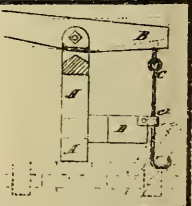

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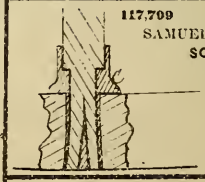
SAMUEL MITCHELL,
SOCKETS



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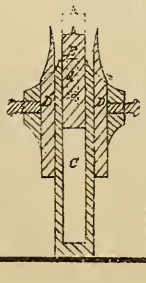
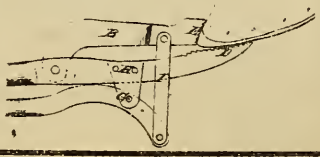
DANIEL S. KNIFFEN,
PLUG-CUTTERS



117,703 DANIEL MATER,
HORSESHOE-NAIL CLINCHERS.



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J. OWEN MOORE,
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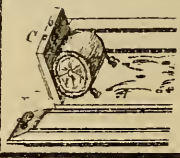
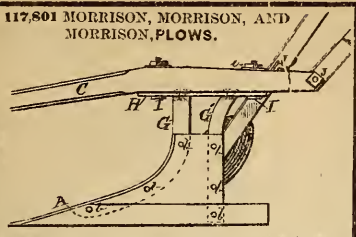
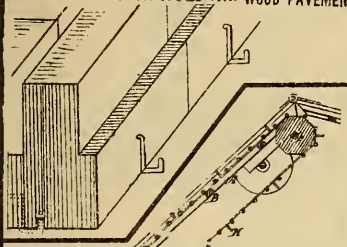


117,801 MORRISON, MORRISON, AND MORRISON, PLOWS.

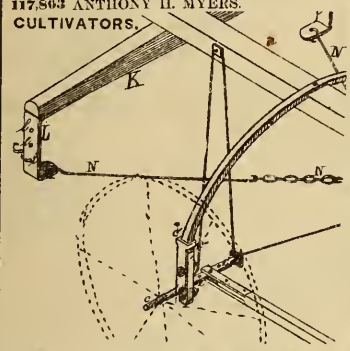


117,802 DAVID H. MULFORD WOOD PAVEMENT

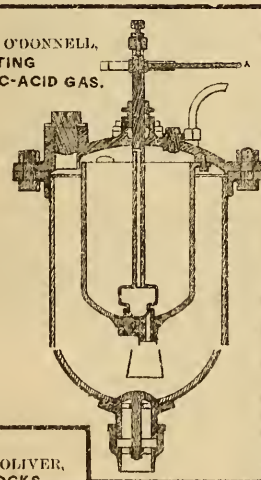


117,804 JOHN J. NEUMAN, ICE-ELEVATORS.

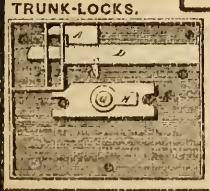
117,803 ANTHONY H. MYERS. CULTIVATORS.



117,805 JAMES D. O'DONNELL, GENERATING CARBONIC-ACID GAS.

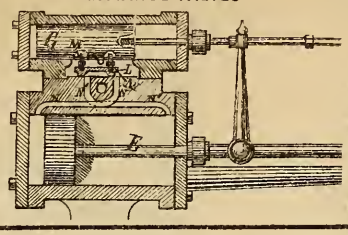


117,806 JAMES H. OLIVER, TRUNK-LOCKS.

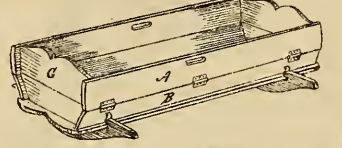


117,807 JOHN S. ORNDORFF, POULTRY FOUNTAINS.

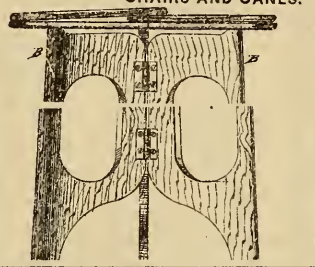
117,808 JAMES V. PANGBURN, BALANCE-VALVES



117,809 DAVID OTHO PARKER, CRADLES.



117,810 DAVID OTHO PARKER, CHAIRS AND CANES.



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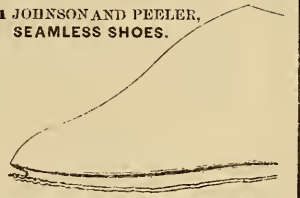
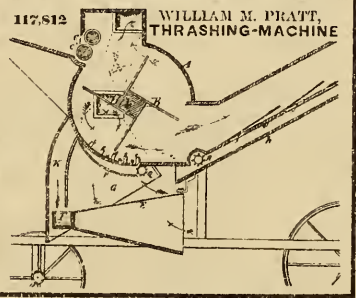
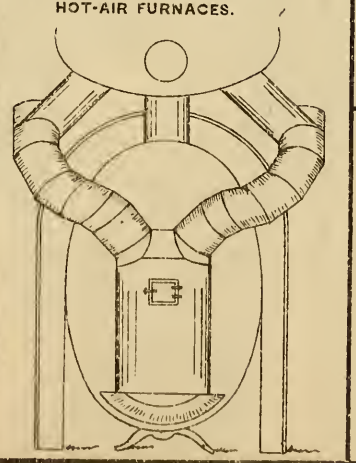


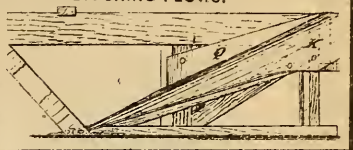
117,812 WILLIAM M. PRATT, THRASHING-MACHINE



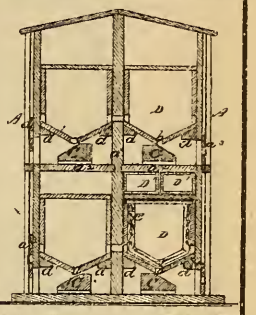
117,814 HENRY RANDALL. HOT-AIR FURNACES.



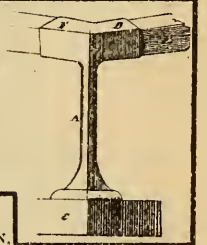
117,813 ROBERT M. PRIMMER. DITCHING-PLOWS.



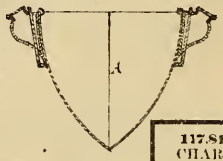
117,815 REEVE AND PARKER, BEE-HIVES.



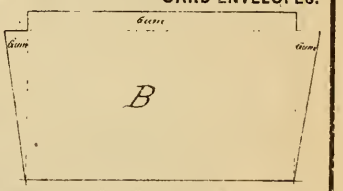
117,816 JOSEPH ROBERTS. WAGON AND CARRIAGE-SEATS.



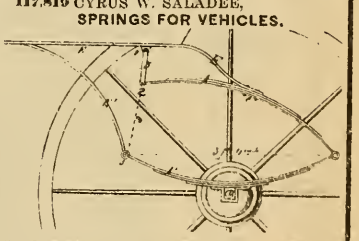
117,817 ROBERT I. ROBESON. LIFE-BOATS.



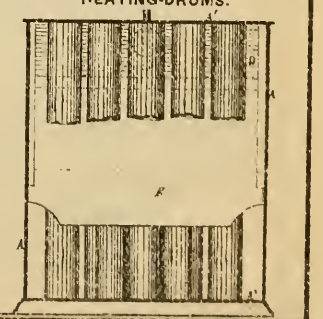
117,818 CHARLES ROWLAND, CARD-ENVELOPES.



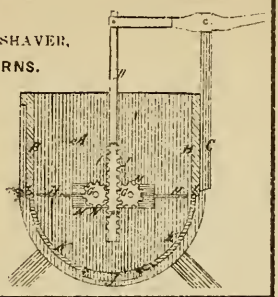
117,819 CYRUS W. SALADEE, SPRINGS FOR VEHICLES.



117,820 CHARLES W. SERVOSS, HEATING-DRUMS.



117,821
JACOB SHAVER,
CHURNS.



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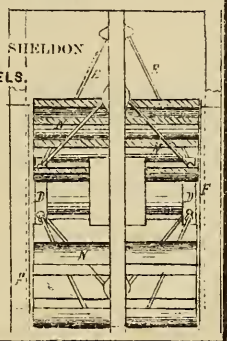
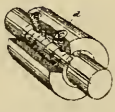
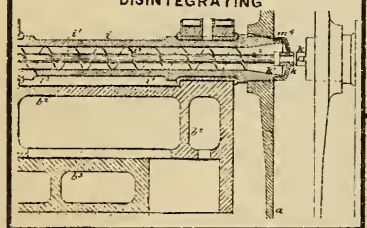
NATHANIEL P. SHELDON
PADDLE-WHEELS.



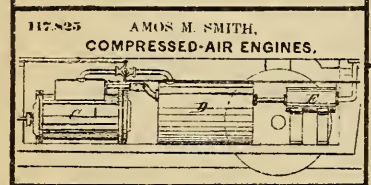
117,823
EDWARD G. SHORTT.
SHAFT-COUPLINGS.



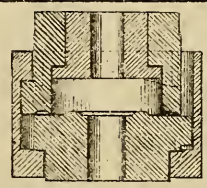
117,824 SIMPSON AND GRAHAM
DISINTEGRATING



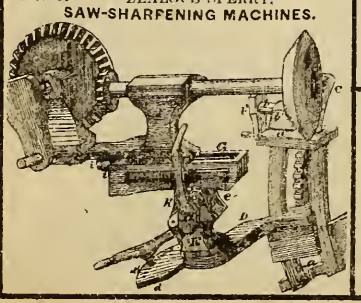
117,825 AMOS M. SMITH,
COMPRESSED-AIR ENGINES.



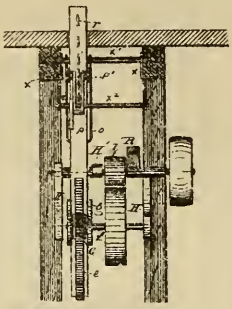
117,826
ISAAC SMITH,
DIE-MOLDS



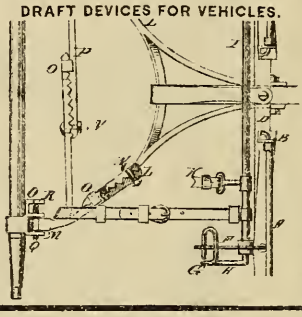
117,827 ZEALOUS SPERRY.
SAW-SHARPENING MACHINES.



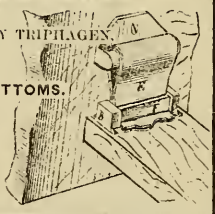
117,828 EDWARD H. STEARNS,
MACHINES FOR TURNING LOGS.



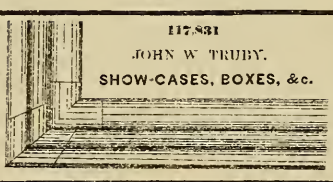
117,829 JONATHAN S. TIBBETS,
DRAFT DEVICES FOR VEHICLES.



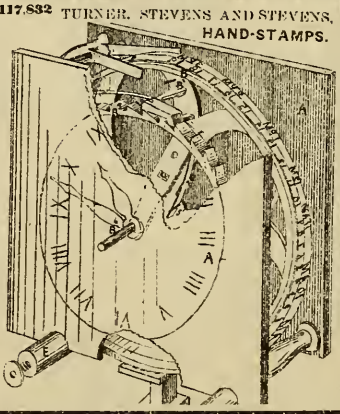
CHARLES HENRY TRIPHAGEN,
SPRING BED-BOTTOMS.
117,830



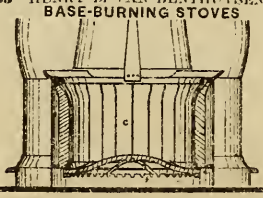
117,831
JOHN W. TRUBY.
SHOW-CASES, BOXES, &c.



117,832 TURNER, STEVENS AND STEVENS,
HAND-STAMPS.



117,833 HENRY B. VAN BENTHUYSEN.
BASE-BURNING STOVES



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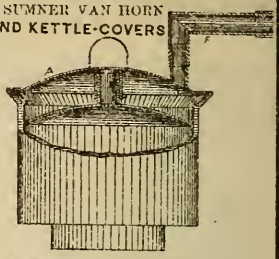
POT AND KETTLE-COVERS



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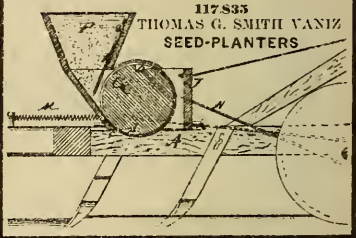
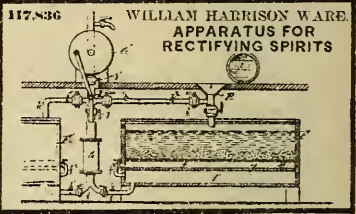
SEED-PLANTERS



117,836 WILLIAM HARRISON WARE.
APPARATUS FOR
RECTIFYING SPIRITS



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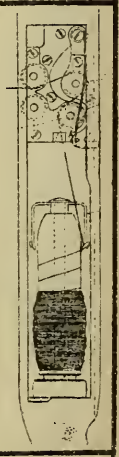
SHUTTLES FOR WEAVING
WIRE-CLOTH



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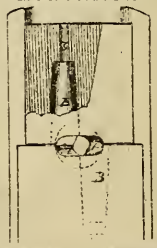
RICHARD N. WATROUS
DIES FOR FORMING THE
LIPS OF AUGER-BITS



117,839 WILLIAM M. WATT. PEG-CUTTERS

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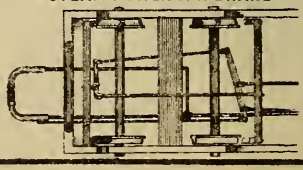
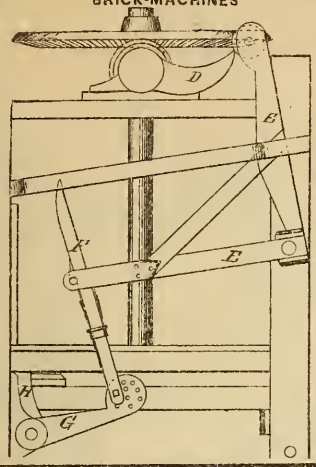
ALEXANDER WEIDE
HOISTING APPARATUS

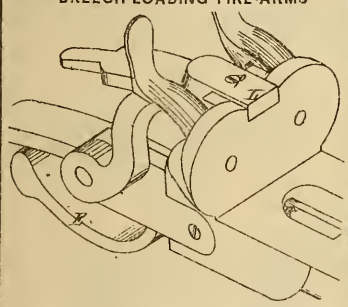
117,841 GEORGE WESTINGHOUSE, JR.
STEAM-POWER AIR-BRAKE



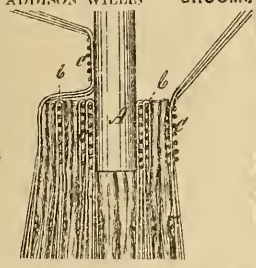
117,842 WILLIAM G. WHITE.
BRICK-MACHINES



117,843 ANDREW E. WHITMORE
BREECH-LOADING FIRE-ARMS



117,844 ADDISON WILLIS BROOMS



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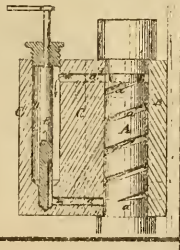
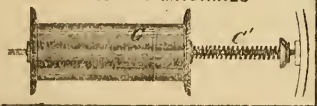
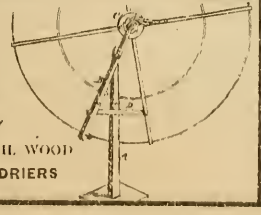
WILLIAM G. WINNE
OILING JOURNALS



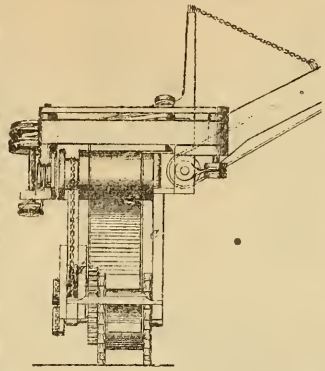
117,846 GEORGE L. WITSIL
WASHING-MACHINES



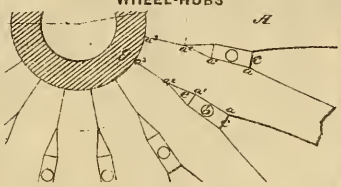


117,847
MALCOLM H. WOOD
CLOTHES-DRIERS

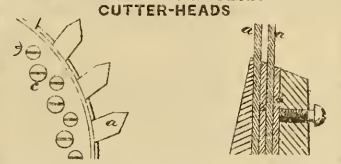
117,848 STEPHEN S. WOOD
DITCHING-MACHINES



117,849 JOHNSTON V. WOOLSEY
WHEEL-HUBS



117,850 JOHNSTON V. WOOLSEY
CUTTER-HEADS



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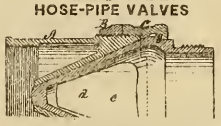
PENCIL-SHEATHS

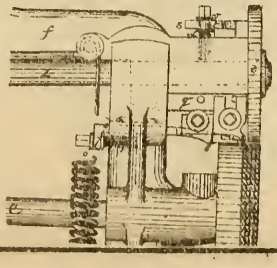
117,853 ALBERT F. ALLEN
HOSE-PIPE VALVES



117,855
WILLIAM S. BELT
METALLIC ROOFINGS

117,854
MATTHEW ANDREW
TAPS FOR OIL-CANS

117,856 LYMAN R. BLAKE
CHANNELING THE SOLES OF BOOTS AND SHOES



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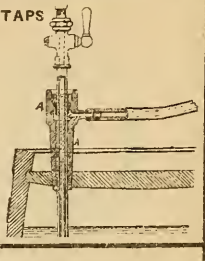
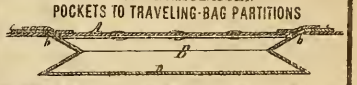
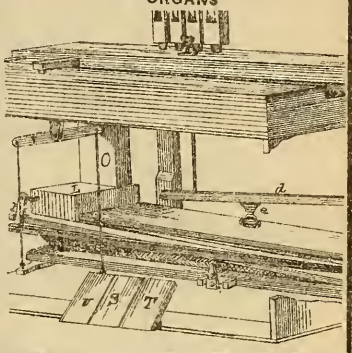
AIR-PRESSURE TAPS



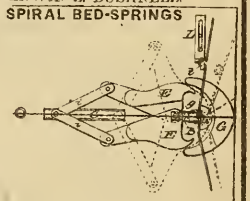
117,858 HENRY BRAUNHOLD
POCKETS TO TRAVELING-BAG PARTITIONS



117,859 BURDETT AND CHURCH
ORGANS



117,860 EDWIN L. BUSHNELL
SPIRAL BED-SPRINGS



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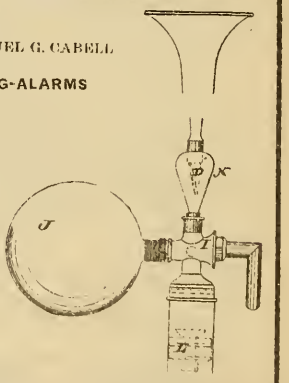
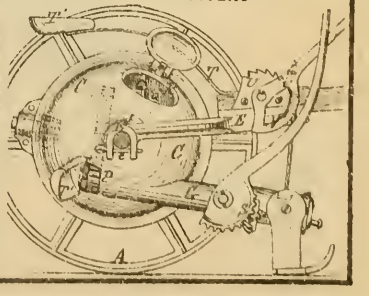
SAMUEL G. CABELL
FOG-ALARMS



117,862 JAMES A. CAULDWELL
HARVESTERS



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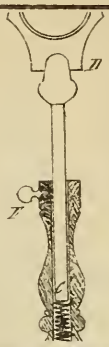
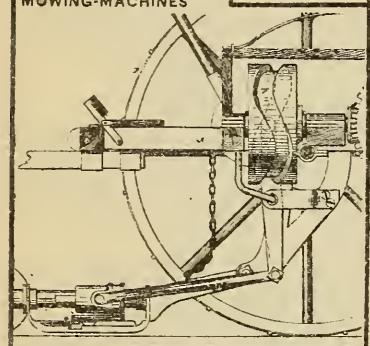
AUGUSTUS CHESNUTWOOD
FIRE-SCREENS



117,864
LEVI S. CLARK
MOWING-MACHINES



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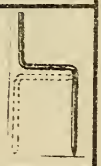
FREDERICK M. CLARKE
CROQUET-ARCHES



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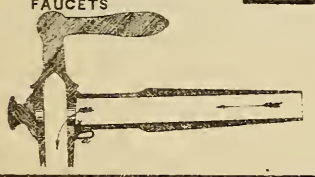
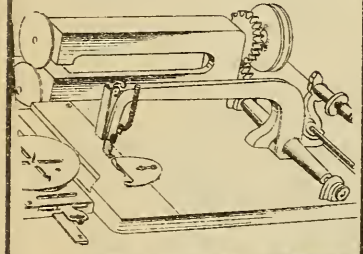
WILLIAM CLEVELAND
FAUCETS



117,867
JACOB L. COLES
SEWING HAT-TIPS
TO LININGS



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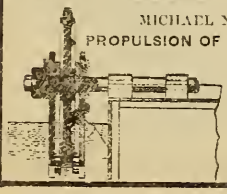
COOK AND COOK
JOURNAL-BEARINGS

MICHAEL N. CUMMISKEY
PROPULSION OF CANAL-BOATS
117,869



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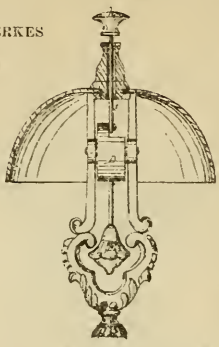
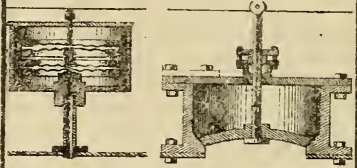
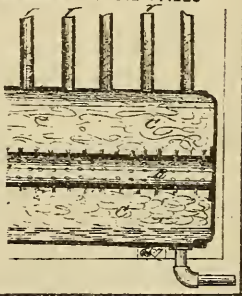
HENRY A. DIERKES
CALL-BELLS



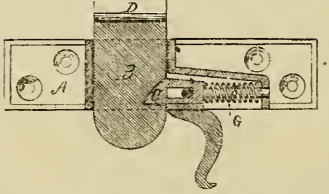
117,872 JARVIS B. EDSON SAFETY-VALVES



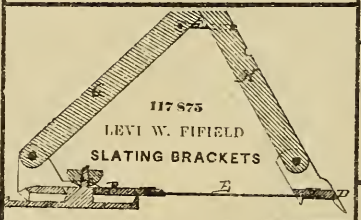
117,873 FAUCETT AND McGOWAN.
CONDENSERS FOR OIL-STILLS



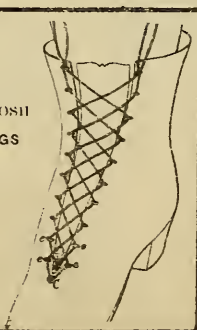
JAMES H. FELLOWS
WAGON-SEAT FASTENINGS
117,874



117,875
LEVI W. FIFIELD
SLATING BRACKETS



117,876
FORD AND McINTOSH
SHOE-FASTENINGS



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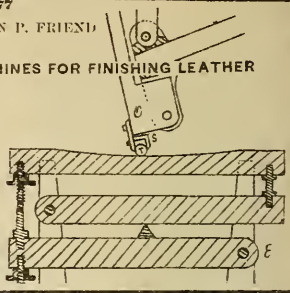
JOHN P. FRIEND
MACHINES FOR FINISHING LEATHER



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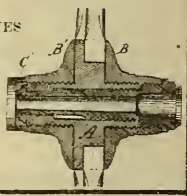
JOHN HENRY GAINES
WAGON-HUBS



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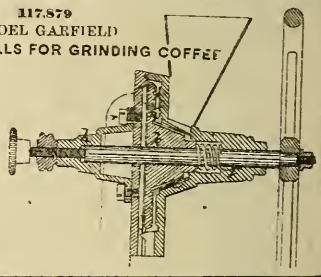
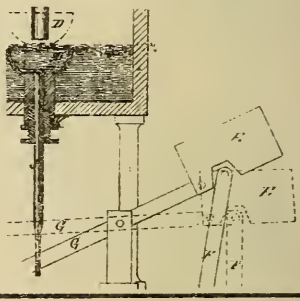
JOEL GARFIELD
MILLS FOR GRINDING COFFEE

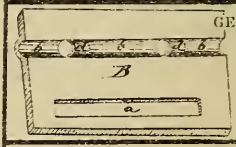


117,880 WILLIAM EARL GRENELLE
DIP-PIPES IN HYDRAULIC MAINS



117,881 ROBERT W. HAMILTON LOCK-NUTS

GEORGE HAVELL
BUCKLES
117,882



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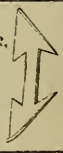
DEVICES TO PREVENT ROOTING



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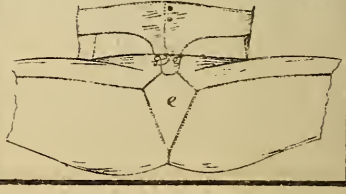
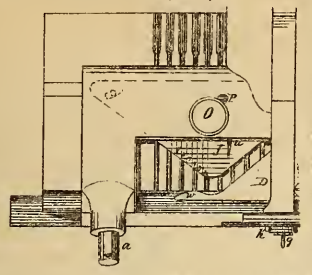


117,886 JOHN M. HOWE,
KNITTING-MACHINES.



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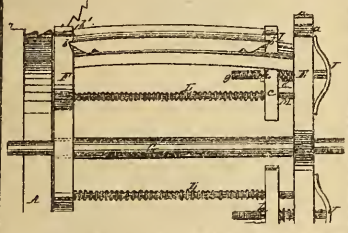
STAVE-JOINTERS.



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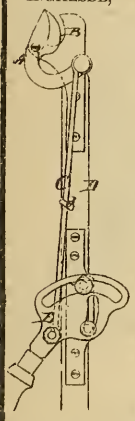

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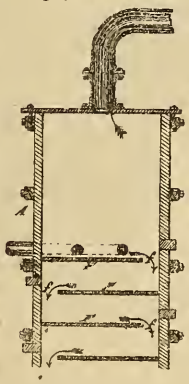
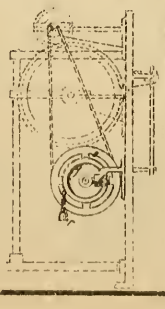
STILLS FOR BEER.



117,891 SAMUEL B. JOHNSON,
FIRE-EXTINGUISHERS.

117,892 THOMAS E. JOHNSON,
PEACH-STONE EXTRACTORS.

117,893 PATRICK KEANE,
SELF-ACTING JACKS



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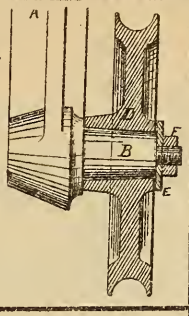
DOOR-HANGERS.



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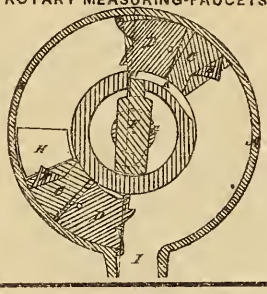
ROTARY MEASURING-FAUCETS.



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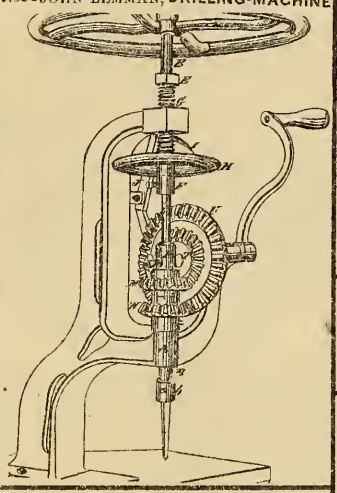

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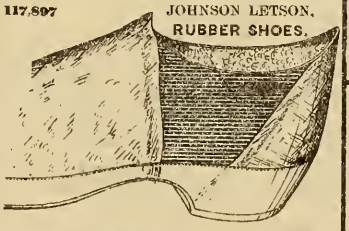
RUBBER SHOES.



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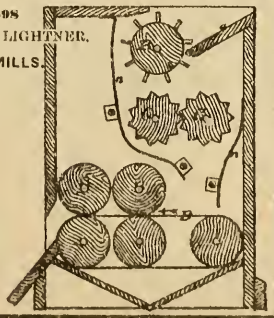
CIDER-MILLS.



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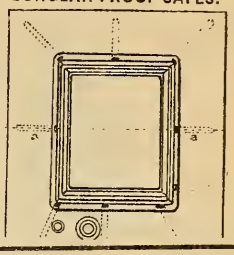
BURGLAR-PROOF SAFES.



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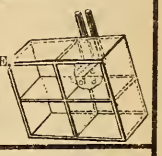
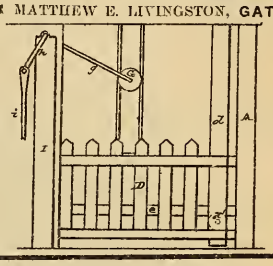
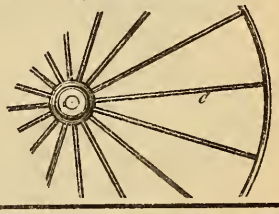
FIRE-EXTINGUISHERS.



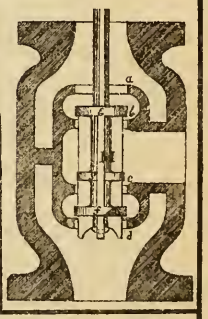
117,901 MATTHEW E. LIVINGSTON, GATE



117,902 JAMES H. LOUGHRIDGE,
CARRIAGE-WHEELS.

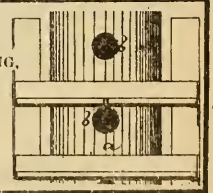


117,903 JOHN D. LYNDE,
GOVERNORS FOR STEAM-ENGINES.

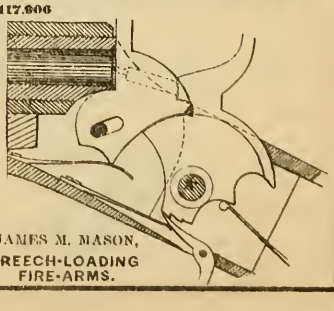


117,904 CHARLES H. MACK,
DENTAL INSTRUMENTS.

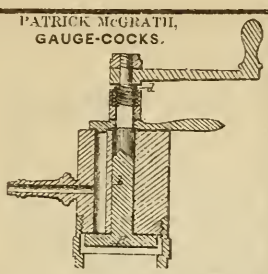
117,905 JOHN J. MANNING,
DRYING GLUE.



117,906 JAMES M. MASON,
BREECH-LOADING FIRE-ARMS.

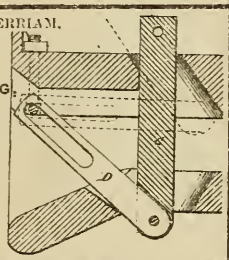


117,907 PATRICK McGRATH, GAUGE-COCKS.

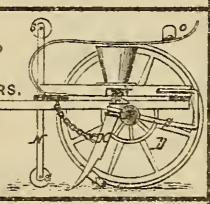


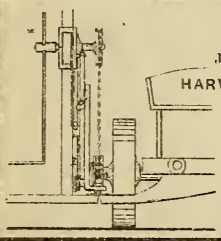
117,908 JAMES METIER MEHARG, SELF-CLOSING COCKS.

GEORGE H. MERRIAM, CAR COUPLING. 117,909



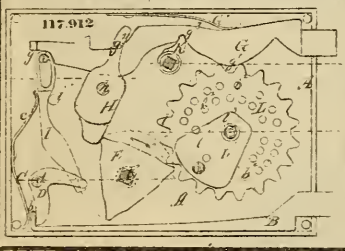
117,910 MERRY AND DUNTON, CORN-PLANTERS.



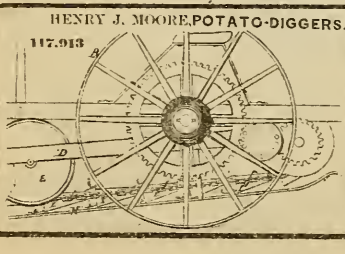


117,911 JOHN MILLER, HARVESTER-REELS.

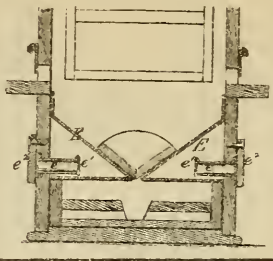
SAMUEL MILLER, COMBINATION LOCKS. 117,912



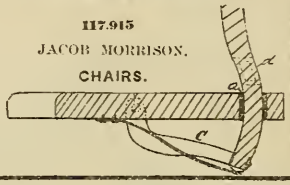
HENRY J. MOORE, POTATO-DIGGERS. 117,913



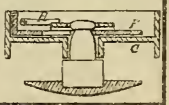
117,914 SAMUEL CHRISTOPHER MOORE, BEE-HIVES.



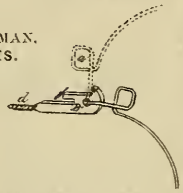
117,915 JACOB MORRISON, CHAIRS.



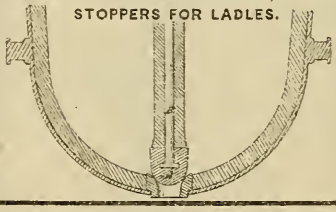
117,916 CHARLES A. NEWTON, BUTTONS OR STUDS



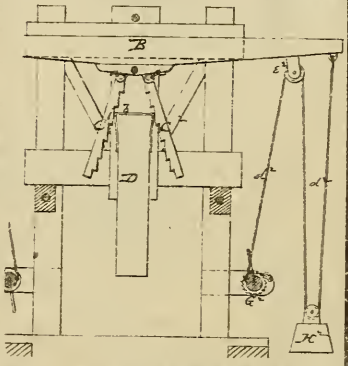
117,917 GEORGE NOTMAN, HAY-RAKES.



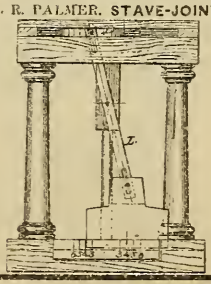
117,918 FRANCIS A. OSTRANDER, STOPPERS FOR LADLES.



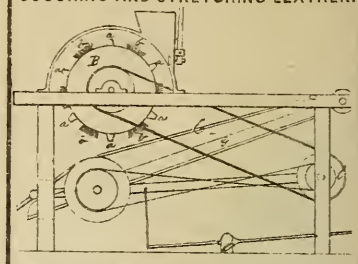
117,919 JOSIAH OUTLAND, LEVER-PRESS



LEMUEL R. PALMER, STAVE-JOINTERS. 117,920

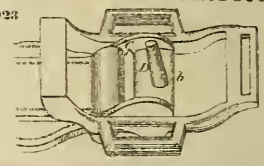


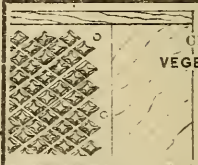
117,921 JAMES C. PARMERLEE, SCOURING AND STRETCHING LEATHER.



WILLIAM PATTERSON, ANIMAL POWERS. 117,922

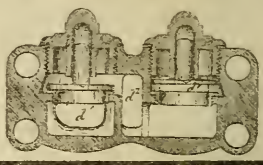
DANIEL K. PEACOCK, TRACE-BUCKLE 117,923



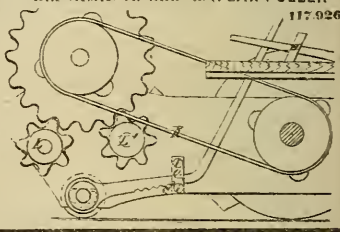


117,924 CHARLES R. PEIRCE VEGETABLE GRATERS.

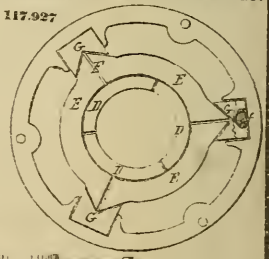
117,925 GAS-PUMP WILLIAM H. POLLARD.

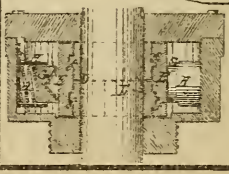


BENJAMIN M. REEVES, FLAX-PULLER 117,926



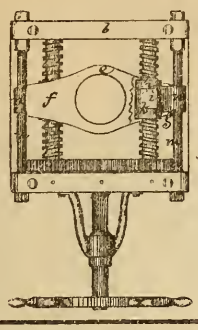
PHILLIP W. RICHARDS, STUFFING-BOXES. 117,927



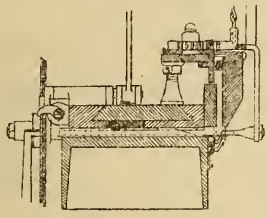


117,928

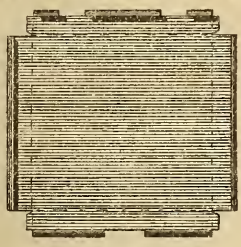
117,929 NATHAN RICHARDSON,
STEERING APPARATUS.



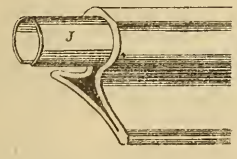
117,931 SYLVESTER H. ROPER,
KNITTING-MACHINES, &c.



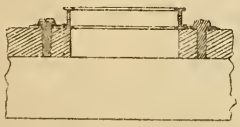
117,932 CHARLES E. RUSS,
COVERS OF SHEET-METAL BOXES.



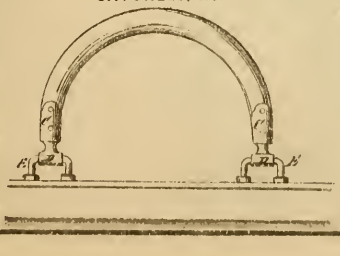
117,933 RUFUS S. SANBORN,
RAILWAY RAILS.



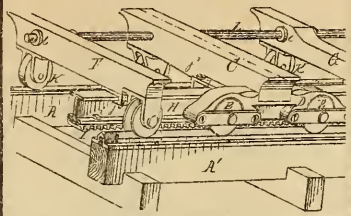
117,934 JACOB H. SAWYER,
FASTENINGS FOR SPINNING-RINGS.



117,935 FERDINAND C. SCHMIDT,
SATCHELS, &c.

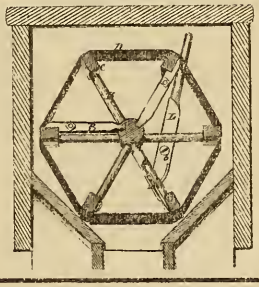


117,936 GEORGE SELDEN,
SAW-MILL CARRIAGES.

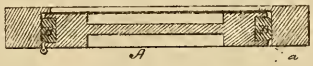


117,937 SIMON SLACK, THILL-COUPLING

117,938 JOHN CRAWFORD SMITH,
IN FLOUR-BOLTS.



117,939 SAMUEL STROOCK,
PACKINGS FOR DOORS AND WINDOWS.



117,940 ALFRED T. SULLIVAN.
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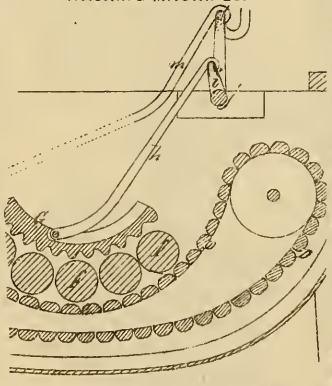

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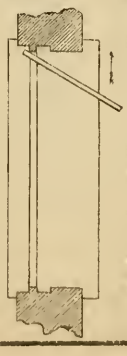
CAR VENTILATORS.



117,943 LUKE W. TAYLOR.
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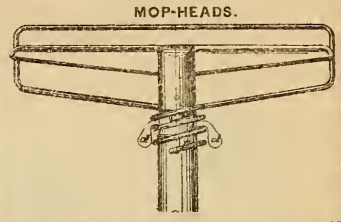
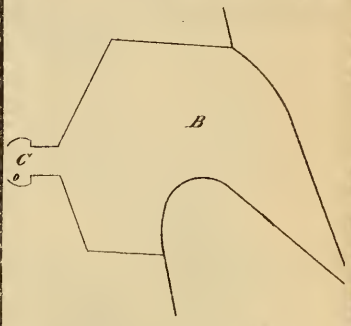


117,944 PATRICK THOMPSON, SAWS.



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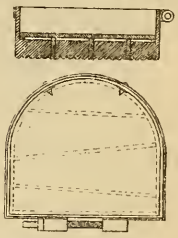
ICE-CREEPERS.



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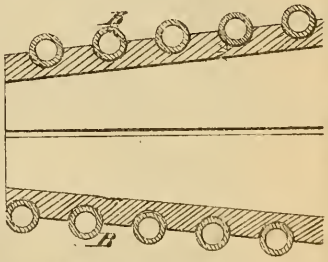

117,948 JEROME WHEELOCK,
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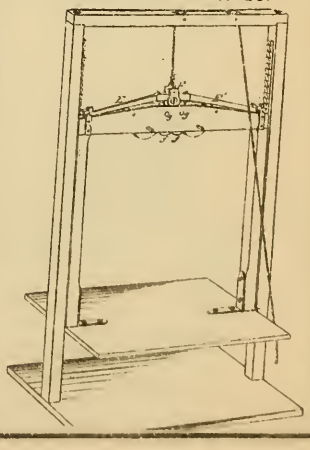
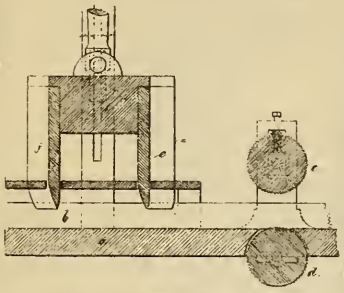
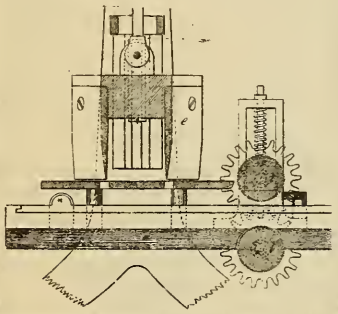


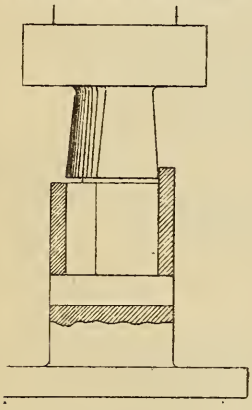
117,951 WILLIAM L. WILLIAMS,
WOOD-SPLITTING MACHINES.



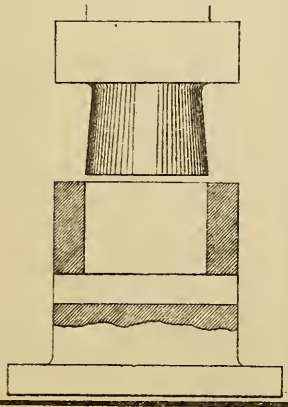
117,952 WILLIAM L. WILLIAMS,
SPLITTING KINDLING-WOOD.



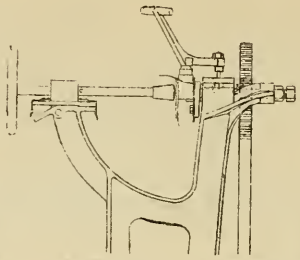
117,953 JOHN T. WILSON,
FOR DRAW-BARS OF RAILROAD COUPLINGS.



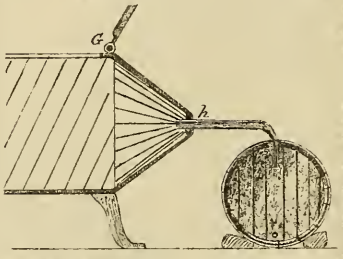
117,954 JOHN T. WILSON,
DRAW-HEAD FACE-PLATES



117,955 RICHARD C. LAMBERT,
HEEL-BURNISHING MACHINES.

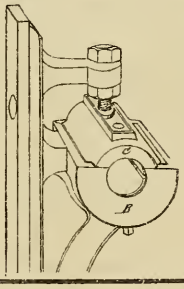


117,956 ARTHUR DE WITZLEBEN,
BARREL-PITCHING MACHINES.

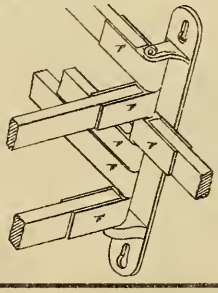


4,501 ETIENNE BOILEAU,
FIRE-PLATES FOR STOVES.

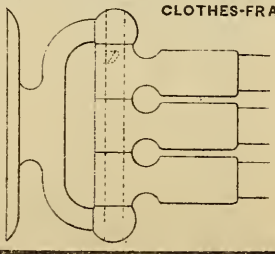
4,502 JAMES DUFF,
SELF-LUBRICATING JOURNAL-BOXES.



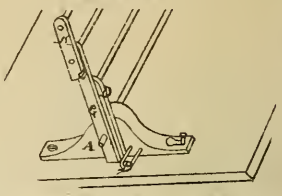
4,503 JOHN E. EARLE,
CLOTHES-FRAMES.



4,504 JOHN E. EARLE,
CLOTHES-FRAMES.

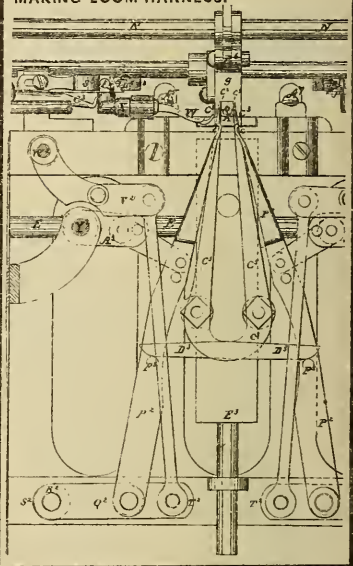


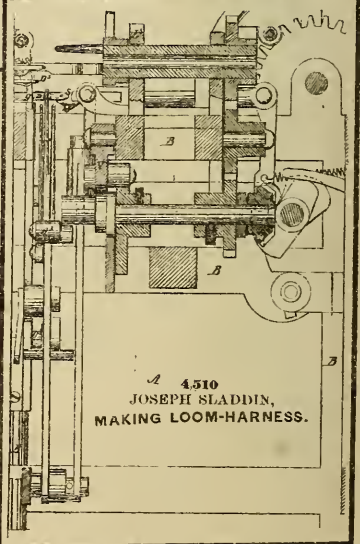
4,505 VILAS M. HEATH,
CLOTHES-RACKS.



4,506
GARRY I. MIX,
IRON SPOONS.

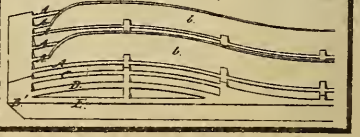
4,509 JOSEPH SLADDIN,
MAKING LOOM-HARNESS.





4,510
JOSEPH SLADDIN,
MAKING LOOM-HARNESS.

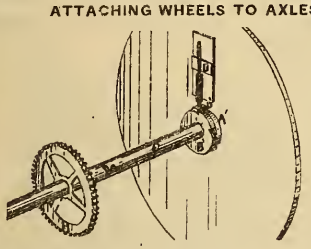
4,511 JOHN R. SMITH, GRATE-BARS.



ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
AUGUST 15, 1871.

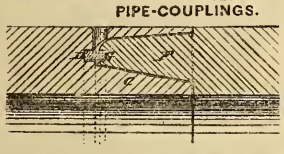
117,957 LEVI H. ALEXANDER,
FISHING-NETS.

117,958 FRANCIS ALGER.
ATTACHING WHEELS TO AXLES.

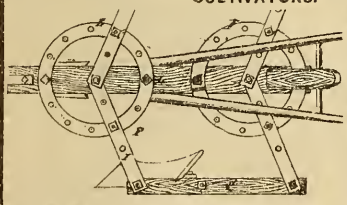


117,959 EDWARD AMERICUS ANDERSON,
BROOMS.

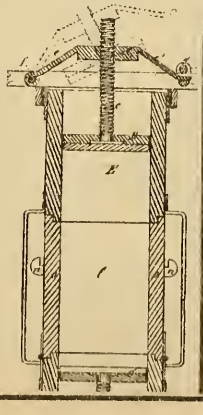
117,960 JOSEPH F. ANDREWS.
PIPE-COUPLINGS.



117,961 WILLIAM J. ARRINGTON,
CULTIVATORS.



117,962 WILLIAM J. ARRINGTON,
BALING-PRESSES.



117,963 CHARLES AYERS,
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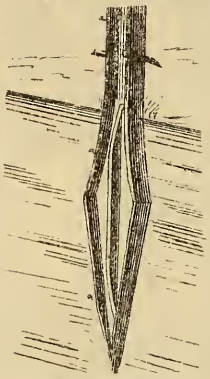
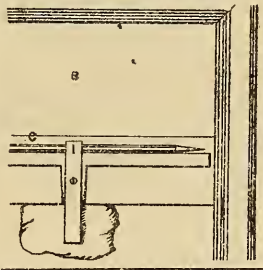
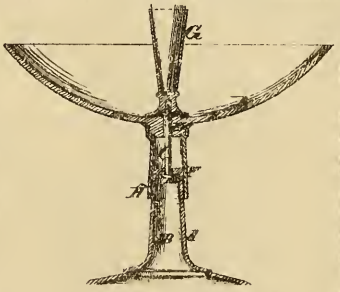


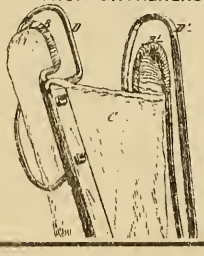
117,964 WILLIAM F. BAADE,
SLATES.



117,965 SAMUEL S. BARRIE,
EPERGNES FOR FRUITS AND FLOWERS.

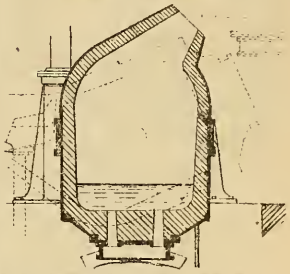


117,966 BARRY AND BARRY.
FRUIT-GATHERERS.

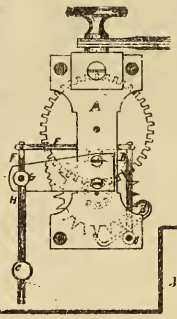


117,967 MARY EMMA BAYLIS,
PAPER WRAPPERS FOR NEEDLES.

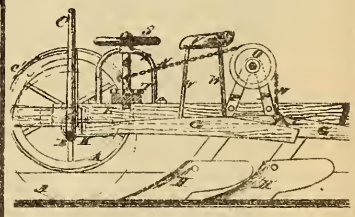
117,968 HENRY BESSEMER,
MANUFACTURE OF IRON AND STEEL.



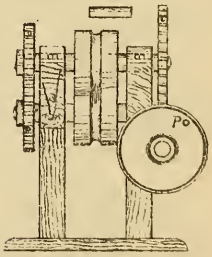
117,969 JOHN M. BEVERLEY
MOSQUITO-FANS.



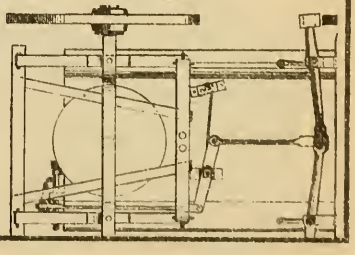
117,970 JOHN BLACKWOOD,
GANG-PLOWS.



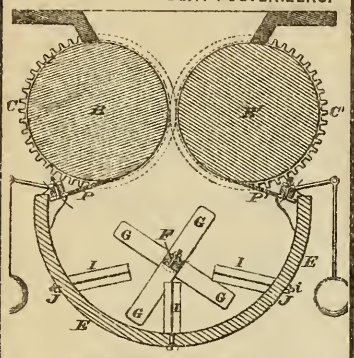
117,971 DANIEL A. BOLT,
HOISTING-MACHINES.



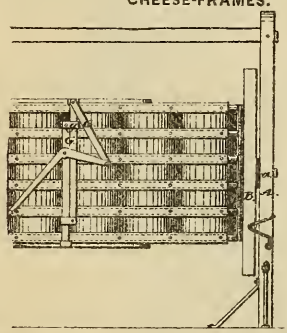
117,972 HENRY ROTHE,
OMNIBUS-BRAKES.



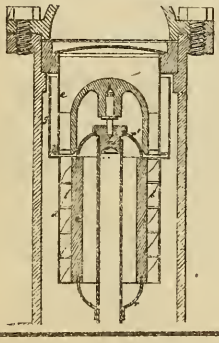
117,973 GEORGE C. BOVEY,
CLAY-PULVERIZERS.



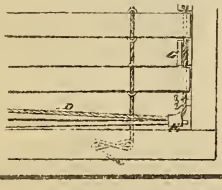
117,974 THOMAS M. BRINTNALL
CHEESE-FRAMES.



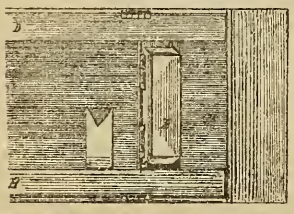
117,975 JOHN BROUGHTON,
WATER-METERS.



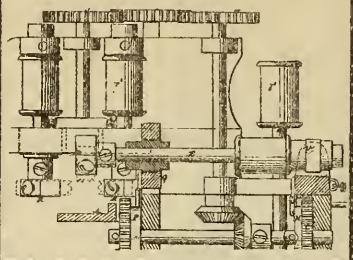
117,976 GEORGE BROWNLEE,
SPRING BED-BOTTOMS.



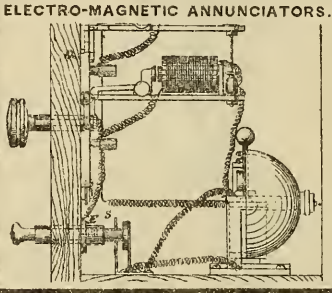
117,977 CHARLES BÜTGENBACH,
LIFE-BOATS AND BED-BOTTOMS.



117,978 JAMES W. CAMPBELL,
CARVING-MACHINES.



117,979 JACOB CAPRON,
ELECTRO-MAGNETIC ANNUNCIATORS.



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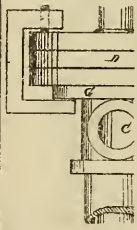
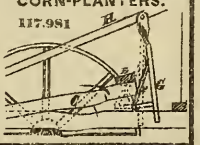
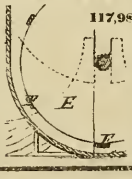


HENRY S. CATE,
PACKINGS
FOR
OIL-WELLS.

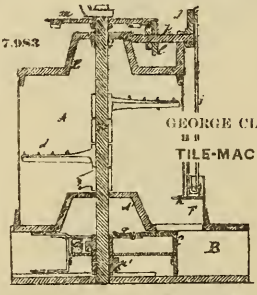
WILLIAM B. CHAMBERS,
CORN-PLANTERS.
117,981



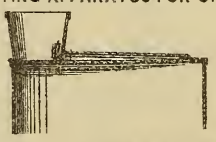
DANIEL B. CLAYTON,
EGG-BEATERS.
117,982



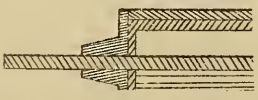
117,983 GEORGE CLAYTON,
TILE-MACHINES.



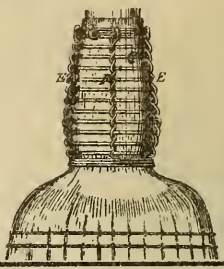
117,984 WILLIAM CLEVELAND,
DECANTING APPARATUS FOR OIL-CANS.



117,985 RALPH COLLIER,
COMPOSITION ROLLS



117,986 ROBERT E. COPSON, BROOMS.



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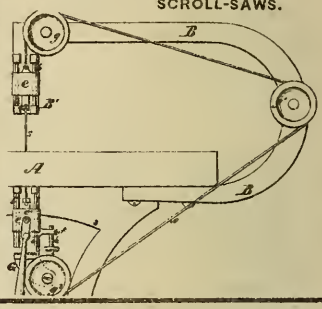
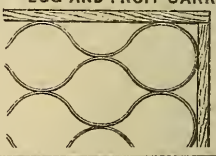
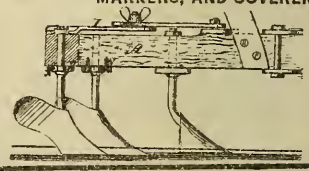
SCROLL-SAWS.



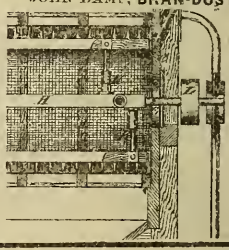
117,988 JOSEPH TAYLOR CORNFORTH,
EGG AND FRUIT-CARRIERS.



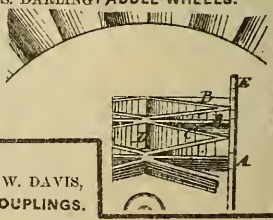
117,989 HUGH J. COYLE,
MARKERS, AND COVERERS.



117,990 JOHN DAMP, BRAN-DUSTERS.



117,991 DANIEL S. DARLING PADDLE-WHEELS.



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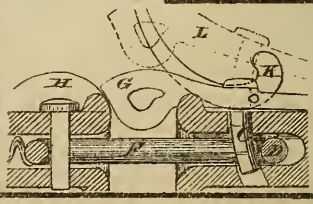
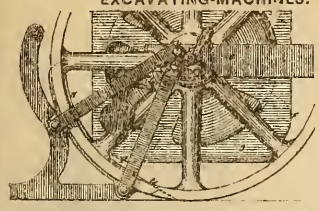
CAR-COUPLINGS.

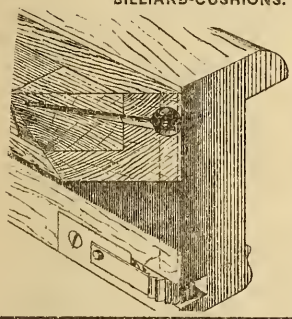


117,993 ROBERT W. DAVIS,
EXCAVATING-MACHINES.



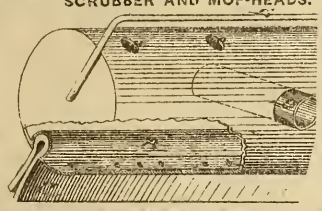
117,994 PAUL R. DAWSON,
HAME-TUGS FOR HARNESS.

117,995 MATHEW DELANEY,
BILLIARD-CUSHIONS.

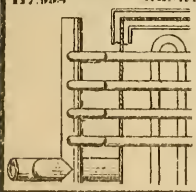


117,996 WILLIAM DOYLE,
BASE-BURNING STOVES.

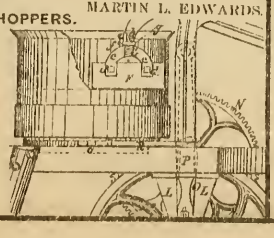
117,997 WILLIAM H. EARNEST,
SCRUBBER AND MOP-HEADS.



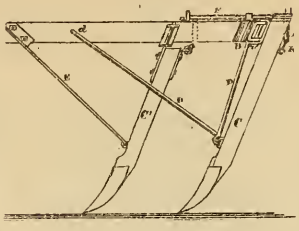
117,998 HENRY H. EDGERTON,
ILLUMINATING-GASES.



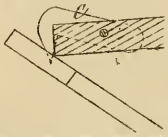
117,999 MARTIN L. EDWARDS,
MEAT-CHOPPERS.



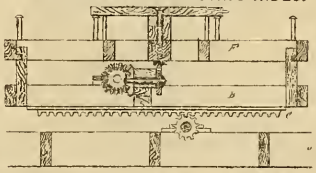
118,000 THOMAS J. ELLIS,
CULTIVATORS.



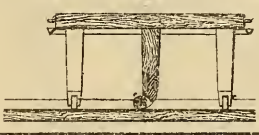
118,001 DAVID FISHER,
IMPROVEMENT IN ROOF-BRACKETS.



118,002 EDWARD FITZHENRY,
MACHINES FOR DRESSING HIDES.

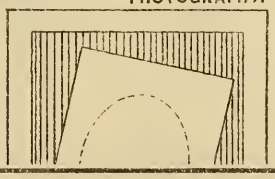


118,003 EDWARD FITZHENRY,
MACHINES FOR DRESSING LEATHER.

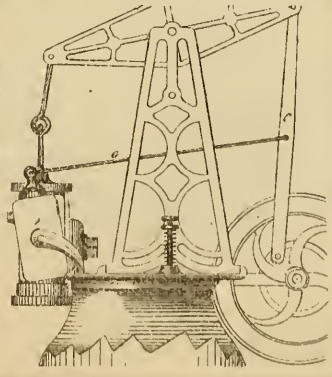


118,005 RICHARD R. FOOTE
RAISING LETTERS ON METAL PLATES.

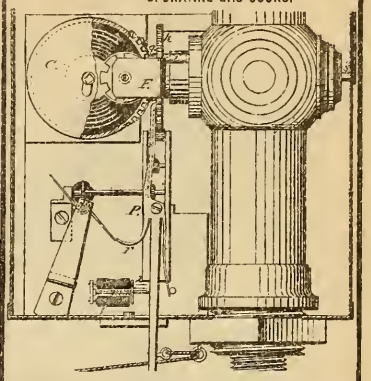
118,006 ELIPHALET J. FOSS,
PHOTOGRAPHY.



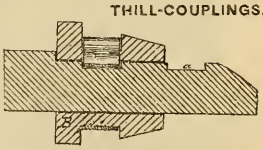
118,007 RUSSEL FRISBIE,
TOY STEAM-ENGINES.



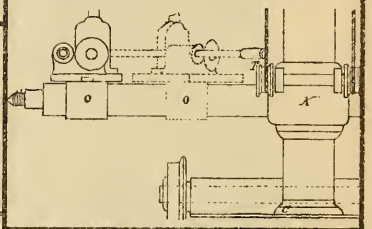
118,008 SAMUEL GARDINER, JR.
OPERATING GAS-COCKS.



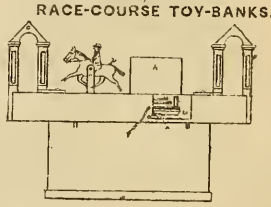
118,009 MARCELLUS C. GRAVES,
THILL-COUPLINGS.



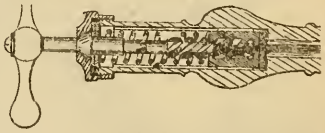
118,010 GRISCOM GRISCOM AND GRISCOM
TUNNELING-MACHINES.



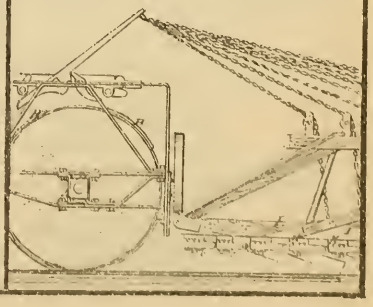
118,011 JOHN HALL,
RACE-COURSE TOY-BANKS.



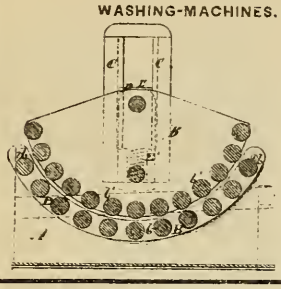
118,012 JOEL HAYDEN, JR.,
SELF-CLOSING FAUCETS.



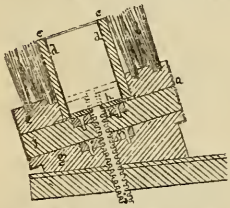
118,013 WILLIAM H. H. HEYDRICK,
ATTACHING PLOWS TO ENGINES.



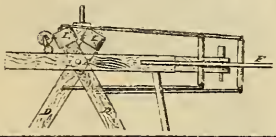
118,014 HARVEY C. HORSEY, WASHING-MACHINES.



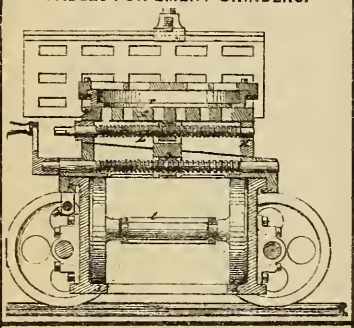
118,015 JOHN R. HOWARD, BLACKING-BRUSHES.



118,016 CHARLES W. HURD, MECHANICAL MOVEMENTS.



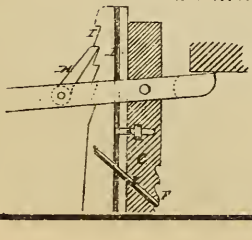
118,017 JAMES L. JACKSON, TABLES FOR EMERY-GRINDERS.



118,018 JOHN JOHNSON, SPRING-BEDS.

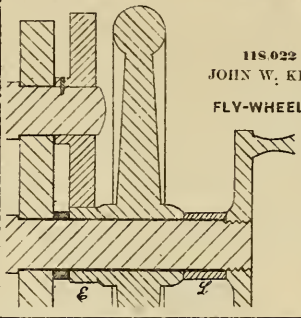
118,019 REUEL P. JOHNSTON, METAL CARPET-BINDINGS.

118,020 STEPHEN D. JONES, LIFTING-JACKS.

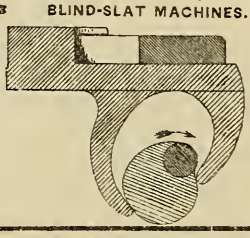


118,021 JOHN A. KAY, METALLIC COLUMNS.

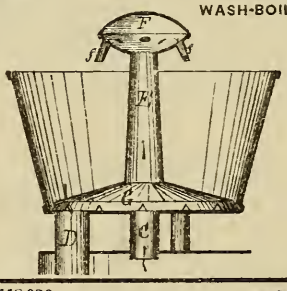
118,022 JOHN W. KEELY, FLY-WHEELS.



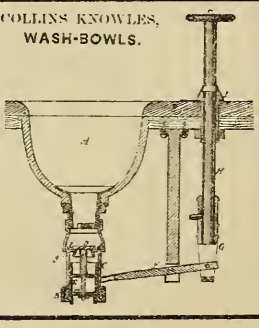
118,023 KENDAL AND STARK, BLIND-SLAT MACHINES.



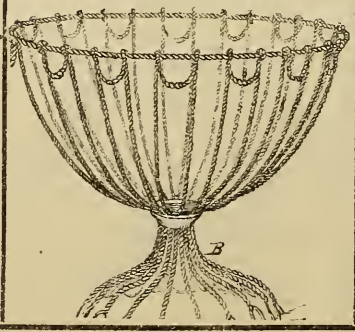
118,024 WILLIAM E. KINNEAR, WASH-BOILERS.



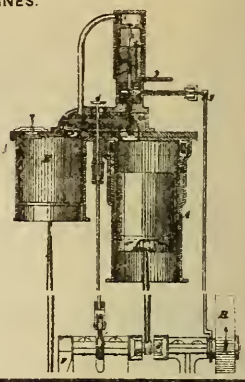
118,026 COLLINS KNOWLES, WASH-BOWLS.



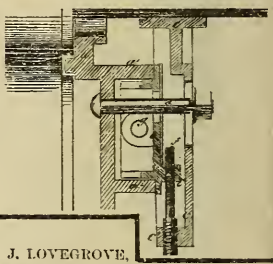
118,027 CYRUS H. LATHAM, CAKE AND FRUIT-BASKETS.



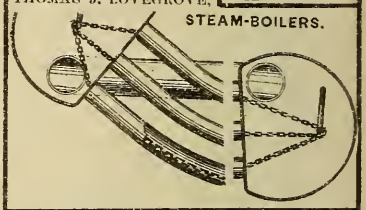
118,028 CHARLES P. LEAVITT, GAS-ENGINES.



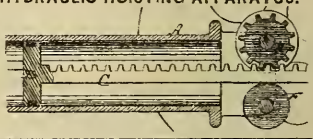
118,029 EDWARD LORD, ROLLERS OF CARDING-MACHINES.



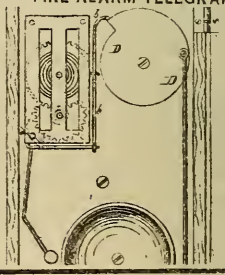
118,030 THOMAS J. LOVEGROVE, STEAM-BOILERS.



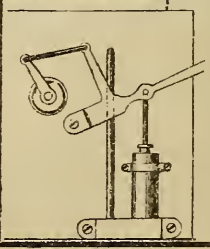
118,031 ALBERT LUCIUS, HYDRAULIC HOISTING APPARATUS.



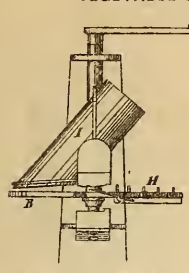
118,033 JOHN W. MARTIN, FIRE-ALARM TELEGRAPHS.



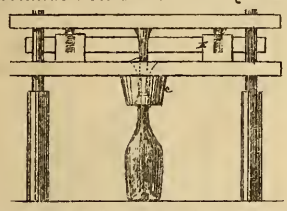
118,034 WENZEL MASEK, TANNING IN VACUO.



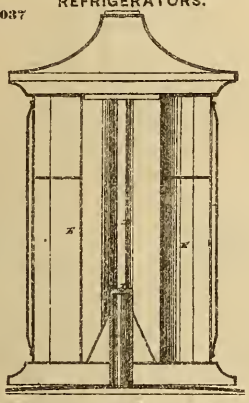
118,035 GIDEON B. MASSEY, VEGETABLE CUTTERS.



118,036 JEAN VICTOR MATHIVET, MACHINES FOR BOTTLING LIQUIDS.

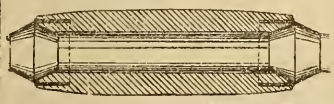


118,037 JOHN MATTHEWS, JR. REFRIGERATORS.

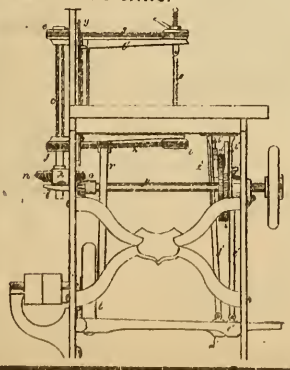


118,038 THOMAS JENNINGS McCARVER, SASH-HOLDERS

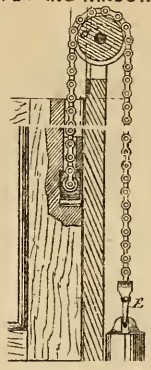
118,039 WILLIAM H. McCOY, BIT-STOCKS.



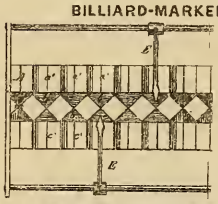
118,041 CHARLES D. MOORE, JIG-SAWS.



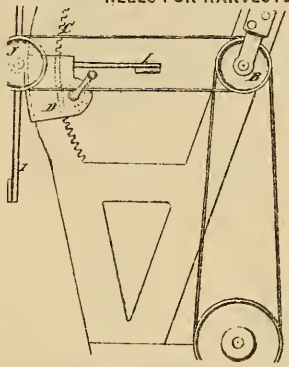
118,042 THOMAS MORTON, SUSPENDING WINDOW-SASHES.



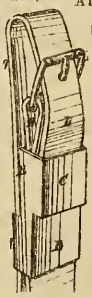
118,044 WILLIAM HENRY NEWELL. BILLIARD-MARKERS.



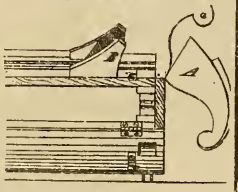
118,045 NUTTING AND ALLEN, REELS FOR HARVESTERS.



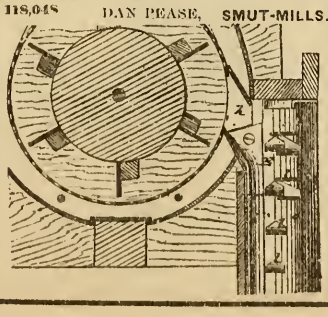
118,046 ADDISON M. OSBORN, LOOPS FOR HARNESS.



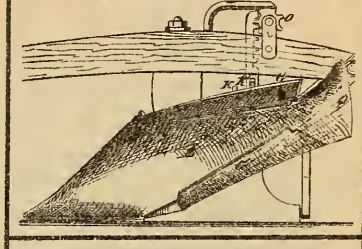
118,047 FREDERICK C. PAYNE, LOUNGE-BEDSTEADS.



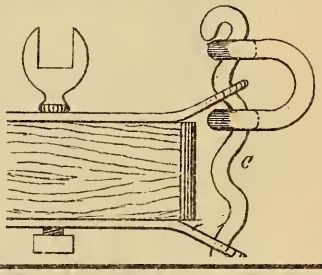
118,048 DAN PEASE, SMUT-MILLS.



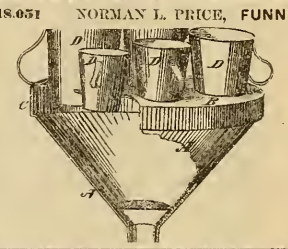
118,049 CHARLES B. PETTENGILL. REVERSIBLE SIDE-HILL PLOWS.



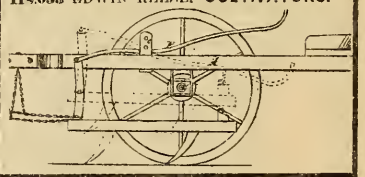
118,050 SAMUEL W. POPE, CLEVISES.



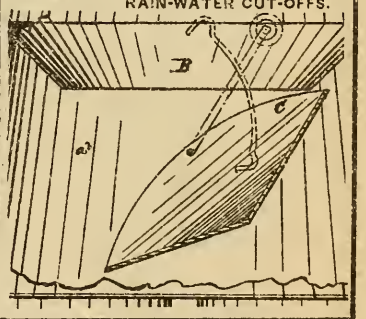
118,051 NORMAN L. PRICE, FUNNELS.



118,053 EDWIN REESE, CULTIVATORS.

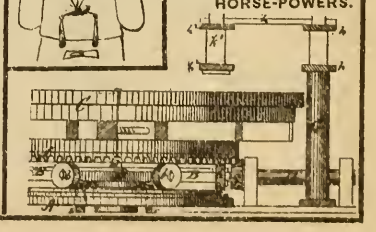


118,054 BERNARD REIN, RAIN-WATER CUT-OFFS.



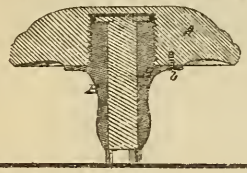
118,055 THOMAS RICH, SUSPENDERS.

118,056 TITUS H. RUSSELL, HORSE-POWERS.

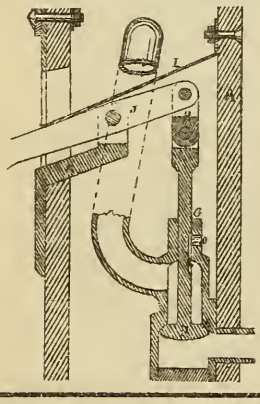


118,057 JOHN A. RYAN, LETTER-BOXES.

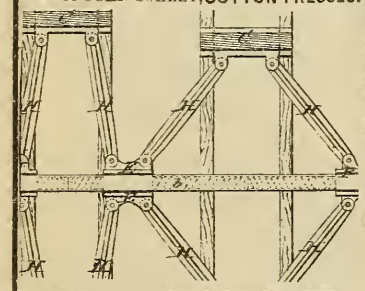
118,058 SAMUEL SAWYER, BIT-STOCKS.



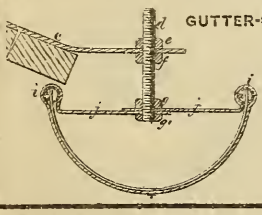
118,059 NICKOLAS SCHLESSER, HYDRANTS.



118,060 JOHN SCHLEY, COTTON-PRESSES.

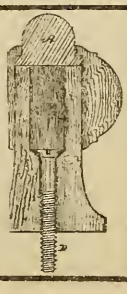


118,061 ALBERT B. SCHULZ, GUTTER-STRAPS.

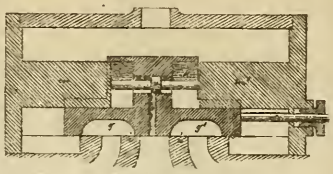


118,062 WILLIAM SHEPHERD, DROP-GRATES FOR FURNACES.

118,063 DON CARLOS SMART, DOOR-CHECKS.

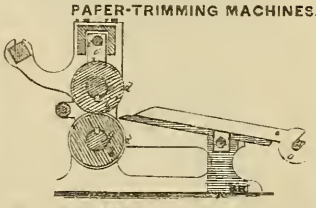


118,064 WILLIAM B. SNOW, VALVES

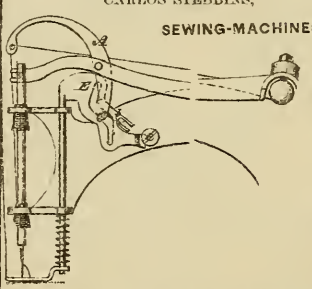


118,065 WILLIAM B. SNOW, ADJUSTABLE-GAUGE CAR-WHEELS.

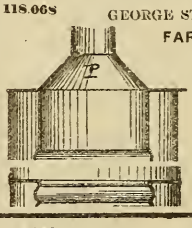
118,066 STARKEY AND POSTON, PAPER-TRIMMING MACHINES.



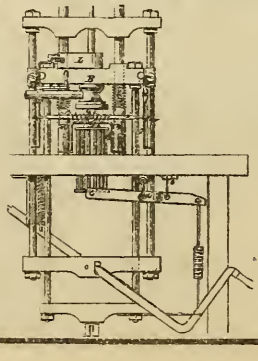
118,067 CARLOS STEBBINS, SEWING-MACHINES.



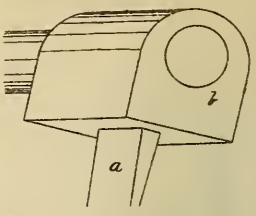
118,068 GEORGE STEVENSON, FARMERS' BOILERS.



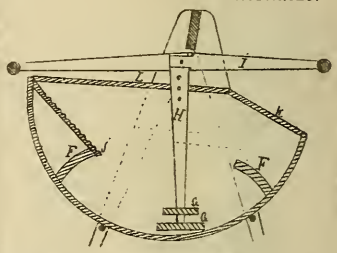
118,069 ESAU D. TAYLOR, BOTTLING GAS-CHARGED LIQUIDS.



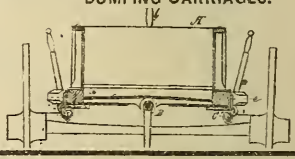
118,070 THOMAS A. TAYLOR, ICE-PICKS.



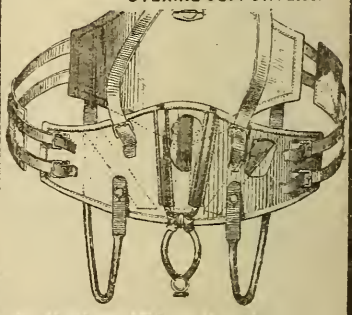
118,071 JAMES M. THOMPSON, WASHING-MACHINES.



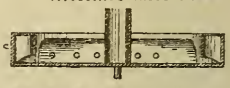
118,072 JEREMIAH R. TRUE, DUMPING-CARRIAGES.



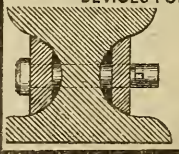
118,073 WILLIAM S. VAN CLEVE, UTERINE SUPPORTERS.



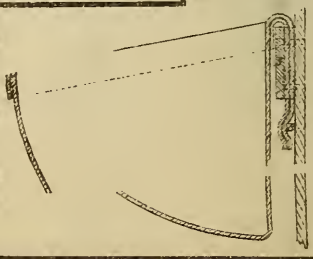
118,074 VAN VANDERBURGH, WASHING-MACHINES.



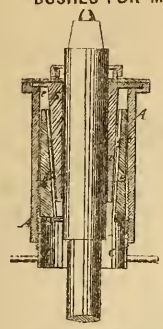
118,075 SAMUEL VANSTONE, DEVICES FOR LOCKING-BOLTS.



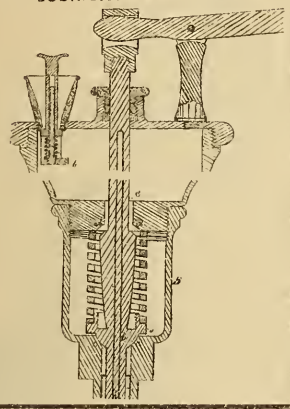
118,076 ALFRED A. VITT, ELEVATOR-CUPS.



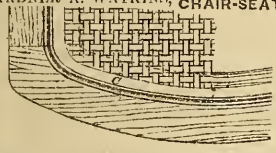
118,077 HERMAN W. VITT, BUSHES FOR MILL-SPINDLES.



118,078 MOSES N. WARD, LUBRICATING APPARATUS



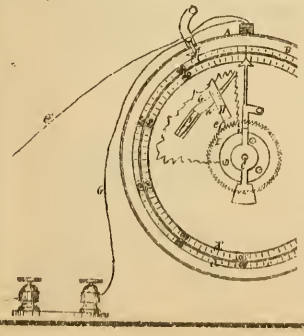
118,079 GARDNER A. WATKINS, CHAIR-SEATS.



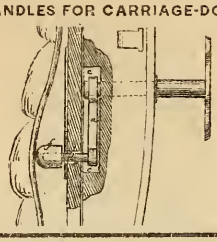
118,080 THOMAS N. WEBB, CURTAIN-FIXTURES.

118,081 THOMAS N. WEBB, CURTAIN-FIXTURES.

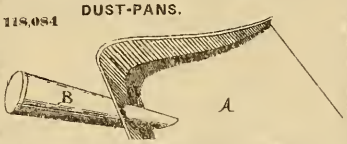
118,082 GEORGE A. WEBSTER, BILLIARD-GAME REGISTERS.



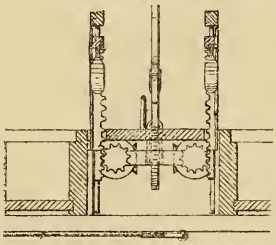
118,083 EDWARD WELLS, HANDLES FOR CARRIAGE-DOORS.



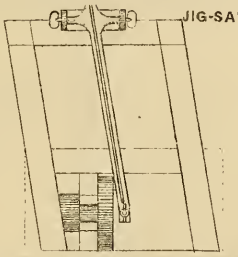
118,084 WILLIAM WESTLAKE, DUST-PANS.



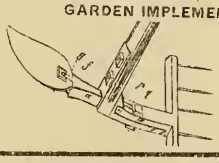
118,085 OLIVER P. WESTON, CARRIAGE-WASHING MACHINES.



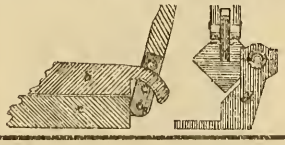
118,087 ARTEMUS H. WHITNEY, JIG-SAWS.



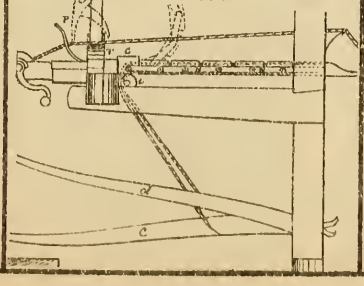
118,088 DAVID S. WILHOIT, GARDEN IMPLEMENTS.



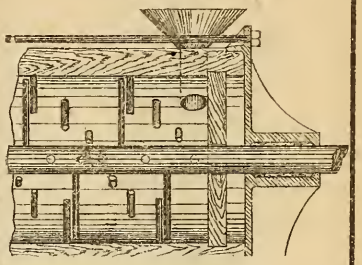
118,090 FRIEDRICH YAESCHE, BRAKES FOR BENDING SHEET METAL.



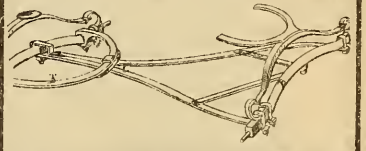
118,091 JAMES YOULL, GRAIN-BINDERS.



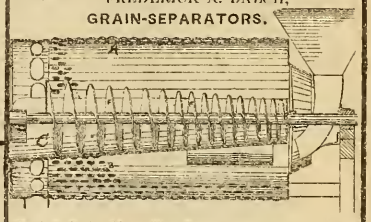
118,092 GUSTAVUS AMES, BEATING-ENGINES



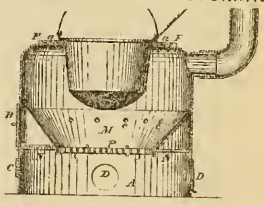
118,093 ANDERSON AND BENSON, RUNNING-GEARS FOR CARRIAGES.



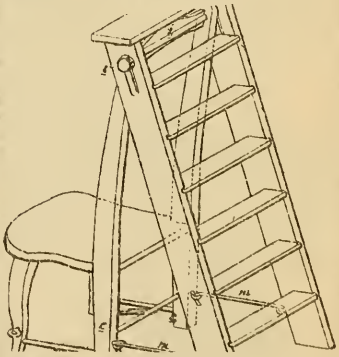
118,094 FREDERICK A. BALCH, GRAIN-SEPARATORS.



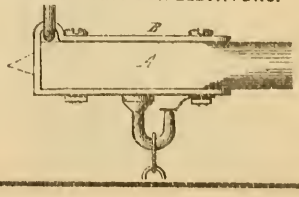
118,095 HENRY BEATTY, PORTABLE FURNACES.



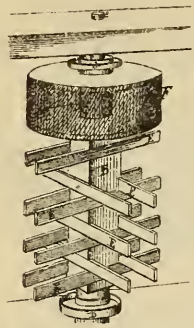
118,096 BLAKE AND BLAKE CHAIRS AND LADDERS.



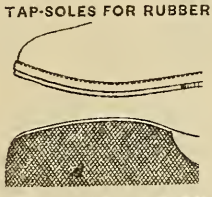
118,097 WILLIAM BERGMANN, BARREL AND BOX-ELEVATORS.



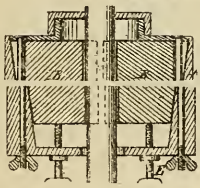
118,098 WILLIAM BOSWELL, MILK-RACKS.



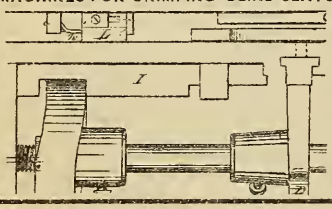
118,099 WILLIAMS, AND BOURN, TAP-SOLES FOR RUBBER BOOTS



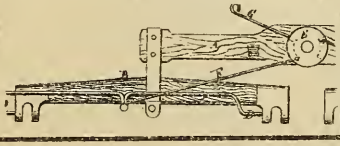
118,101 JAMES BROWN, MILLSTONE-BUSHES.



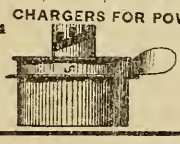
118,102 MARTIN BUCK, MACHINES FOR CRIMPING BLIND-SLATS.



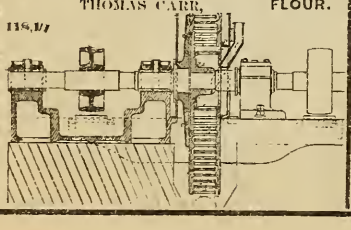
118,103 BYRD AND BYRD, SAFETY-WHIFFLETREES.



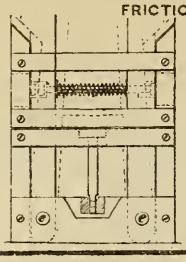
CAPEWELL, CAPEWELL, AND CAPEWELL, CHARGERS FOR POWDER-FLASKS.
118,104



THOMAS CARR, FLOUR.
118,107

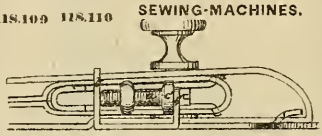


118,107 JOHN C. CLAPP FRICTION-BRAKES

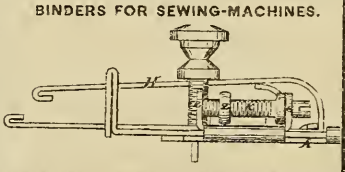


118,108 JOHN B. CLEAVELAND, ARROW-SPRINGS.

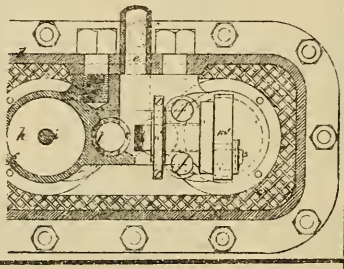
COLTON AND BABCOCK, SEWING-MACHINES.
118,109 118,110



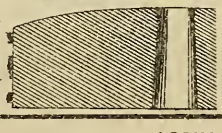
118,111 COLTON AND BABCOCK, BINDERS FOR SEWING-MACHINES.



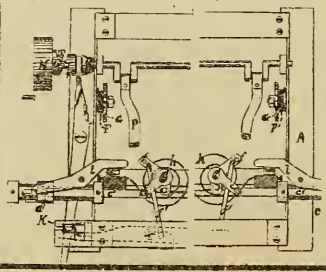
118,112 DAVID P. DAVIS, METERS.



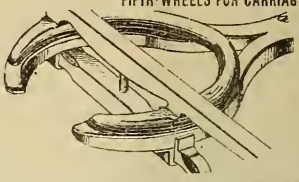
118,113 ZEDEKIAH DAWSON, MILLSTONE-BALANCES



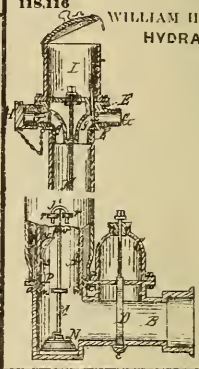
118,111 JOHN DETWEILER, LOOMS.



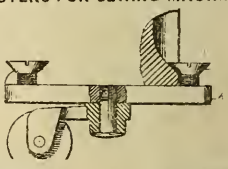
118,115 DAVID C. DORAN, FIFTH-WHEELS FOR CARRIAGES.



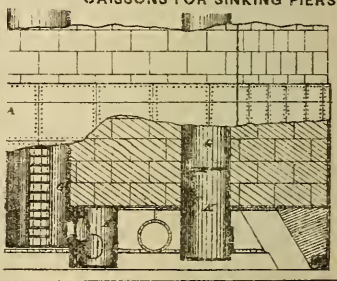
118,116 WILLIAM H. DUFFETT, HYDRANTS.



118,117 FRANK HARPER DUNCAN, CASTERS FOR SEWING-MACHINES.

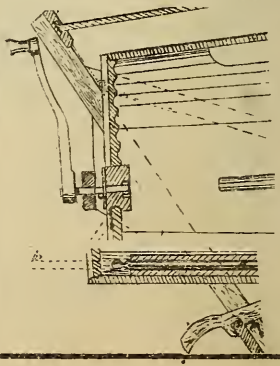


118,118 JAMES B. EADS, CAISSONS FOR SINKING PIERS.

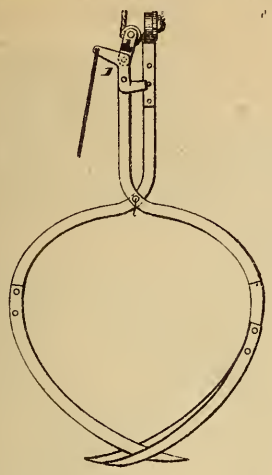


118,119 THOMAS EDMUNDS, PLOWS.

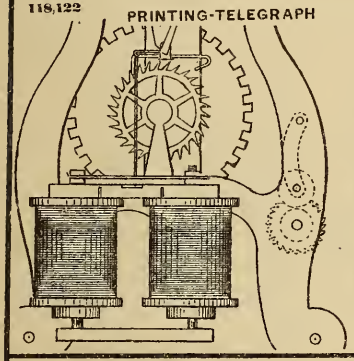
118,120 ROBERT E. FERGUSON, WASHING-MACHINES.



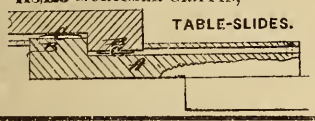
118,121 BENJAMIN G. FOX,
FORKS FOR HAY-ELEVATORS.



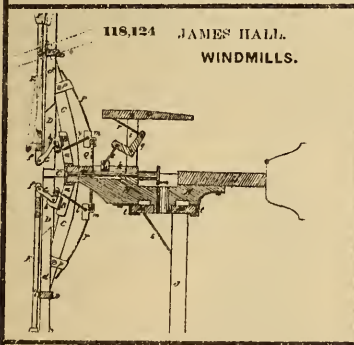
118,122 ROBERT H. GALLAHER.
PRINTING-TELEGRAPH



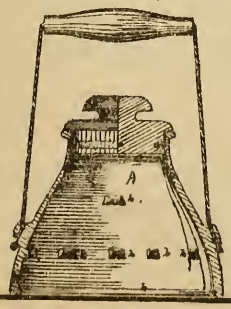
118,123 MORTIMER GRIFFIN,
TABLE-SLIDES.



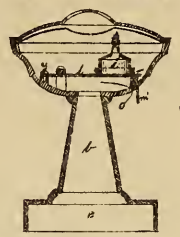
118,124 JAMES HALL.
WINDMILLS.



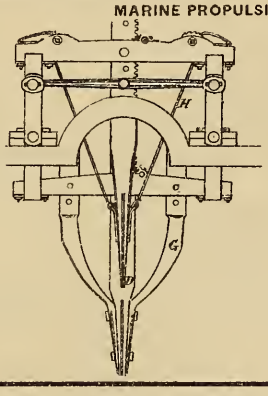
118,125 HERRICK R. HALSEY,
HOUSEHOLD UTENSILS.



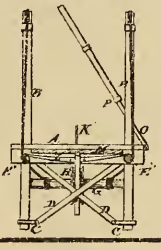
118,126 E. WARREN HASTINGS,
ILLUMINATING INCENSE-BURNERS.



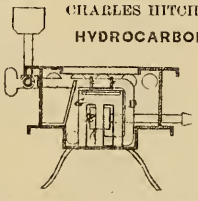
118,127 BENJAMIN S. HEATH,
MARINE PROPULSION.



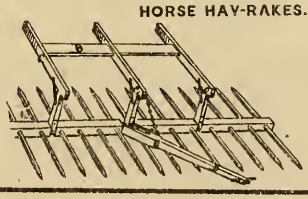
118,128 ANDREW J. HEAVNER,
ADJUSTABLE SCAFFOLDINGS.



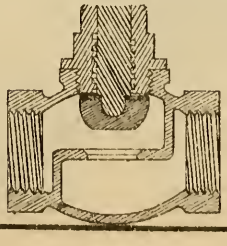
118,129 CHARLES HITCHCOCK
HYDROCARBON STOVES.



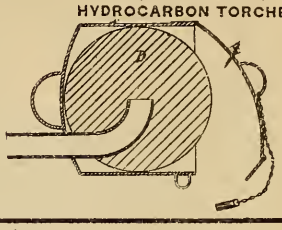
118,130 HOLMAN AND FARRAR,
HORSE HAY-RAKES.



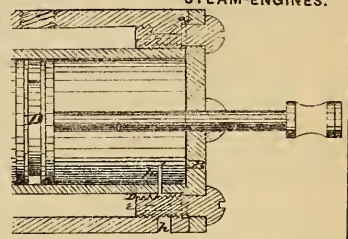
118,131 JAMES EDWIN HOOPER,
TOOLS FOR PACKING VALVES.



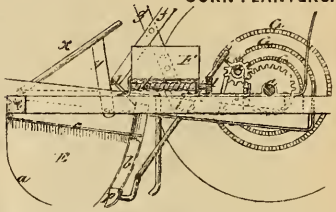
118,132 WILLIAM K. HORNER,
HYDROCARBON TORCHES.



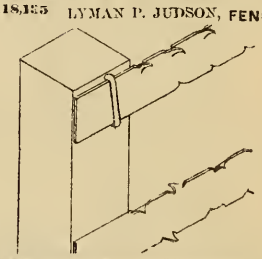
118,133 AMARIAH W. JACKSON,
STEAM-ENGINES.



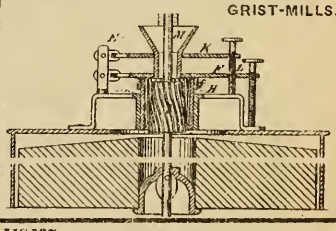
118,134 JOHN JACKSON, JR.,
CORN-PLANTERS.



118,135 LYMAN P. JUDSON, FENCES.

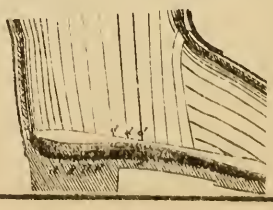


118,136 ERNST C. L. KUNNECKE,
GRIST-MILLS.

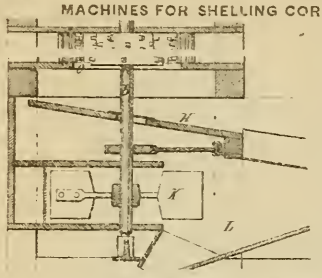


118,137 LEONARD AND LEONARD,
HARNESS-SADDLES.

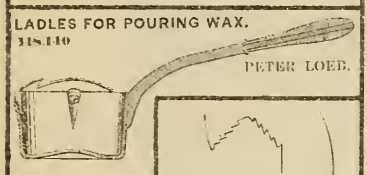
118,138 CHARLES E. LINS,
RUBBER BOOTS.



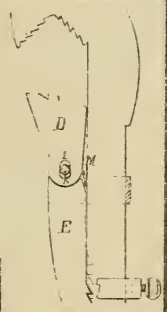
118,139 HENRY LIPPOLD.
MACHINES FOR SHELLING CORN.



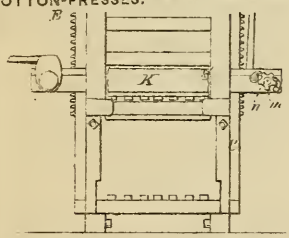
LADLES FOR POURING WAX.
118,140 PETER LOEB.



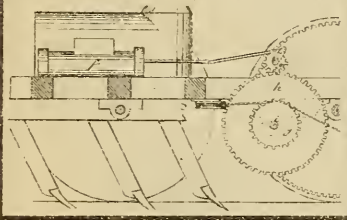
118,141
ALLEN P. LORD.
WRENCHES.



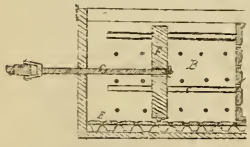
118,142
RANSOM MAULDIN,
COTTON-PRESSES.



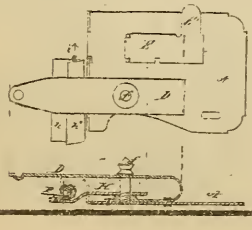
118,143
HERMAN MILLER. STEAM-PLOWS.



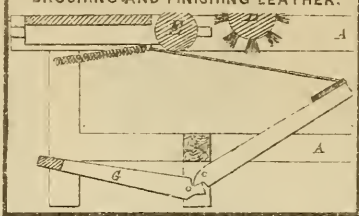
118,144
THOMAS M. MILLETT.
WINE AND CIDER-PRESSES.



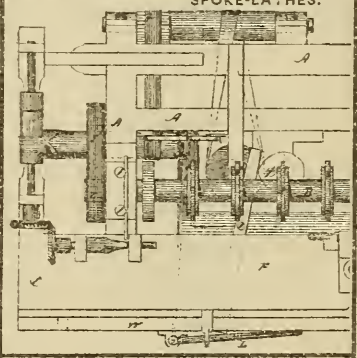
118,145 MILTON J. PALMER.
CORDING ATTACHMENTS FOR SEWING-MACHINES.



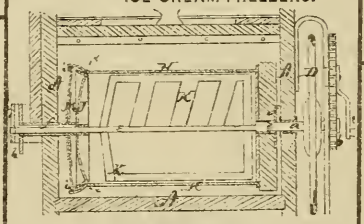
118,146
GEORGE H. PARKER.
BRUSHING AND FINISHING LEATHER.



118,148 PIERCE AND CURTIS,
SPOKE-LATHES.

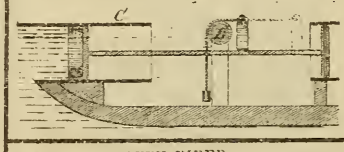


118,149 PLATT AND WILMETH.
ICE-CREAM FREEZERS.

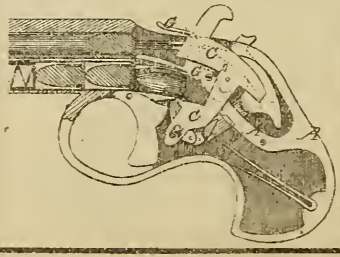


118,150 FREDERICK W. PORTER.
SLATE-WASHERS.

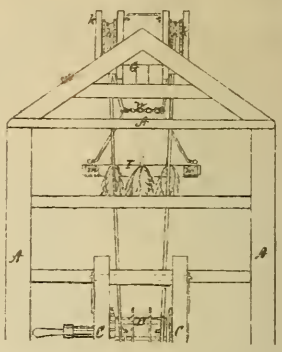
118,151
EBENEZER RAYNALE.
PROPELLING MECHANISMS



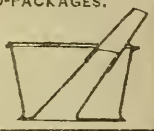
118,152 JOSEPH RIDER.
MAGAZINE FIRE-ARMS.



118,153 REPS. O. ROBERTSON.
TOBACCO-ELEVATORS.



118,154 HENRY H. ROGERS,
NOZZLES FOR LIQUID-PACKAGES.



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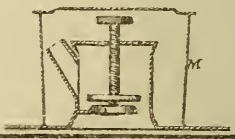
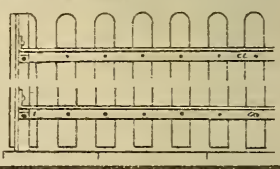
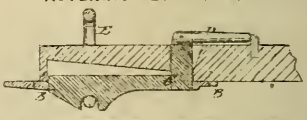
ROGERS AND
WALTER.
SCREW-NOZZLES



118,156 JOHN ROHRER.FENCES.



118,157 TITUS H. RUSSELL.
FASTENING NECK-YOKES TO POLES.



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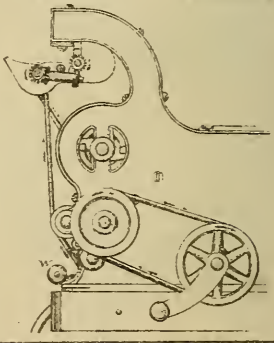
BURRING AND CLEANING WOOL



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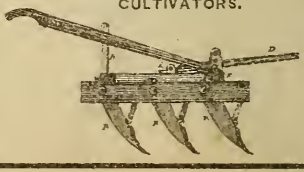
CULTIVATORS.



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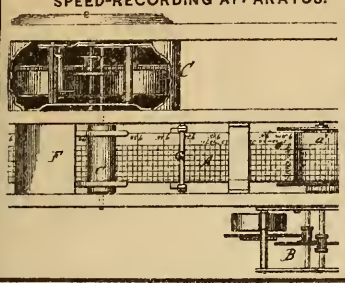
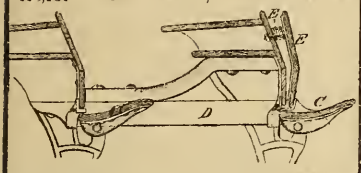
SPEED-RECORDING APPARATUS.



118,161 JAMES SMITH, SCHOOL-DESKS.



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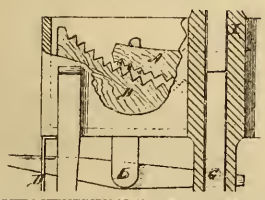
WASHING-MACHINES.



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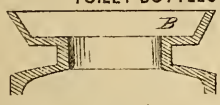
TOILET-BOTTLES



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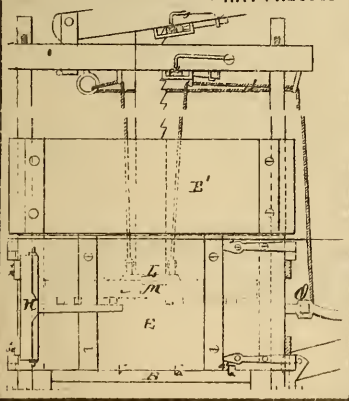
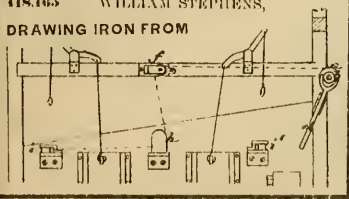
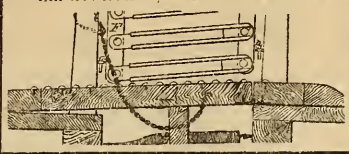


118,165 WILLIAM STEPHENS,
DRAWING IRON FROM



118,166 STEPHENSON AND SUTLIFF,
LIGHTNING-RODS.

118,167
ELI STURGEON, SAFETY-BRIDGES



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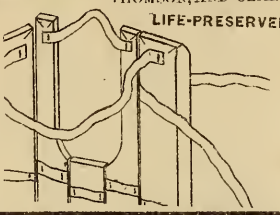
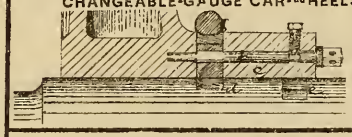
LIFE-PRESERVERS.

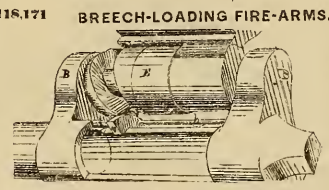


118,169 TINSLEY AND STORER,
MOLDS FOR FINGER-RINGS.

118,170 CHARLES D. TISDALE,
CHANGEABLE-GAUGE CAR-WHEELS

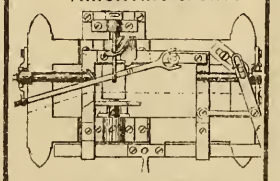


JOSEPH B. WAYNE,
118,171 BREECH-LOADING FIRE-ARMS.



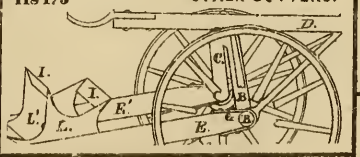
118,172 FIRE-ESCAPES.
EDWIN ROBERT WETHERED

118,173
JACOB WOODBURN,
MACHINES FOR
THROATING SPOKES.

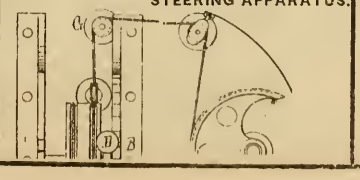


118,174 LETSOME T. WOOSTER,
CASTING BRASS INGOTS.

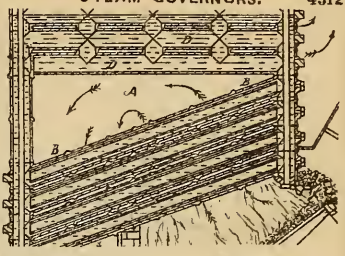
EDGAR ALFRED WRIGHT
118,175 STALK-CUTTERS.



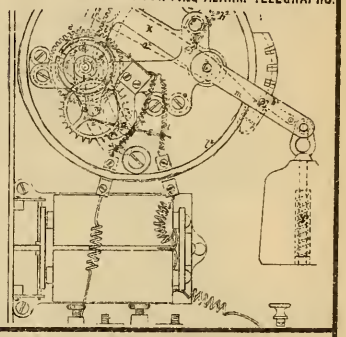
EMANUEL S. DREW,
118,176 STEERING APPARATUS.



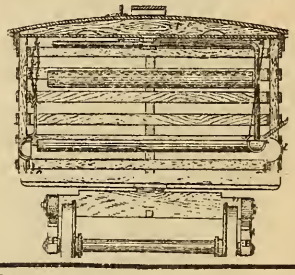
BABCOCK AND WILCOX.
STEAM GOVERNORS. 4512



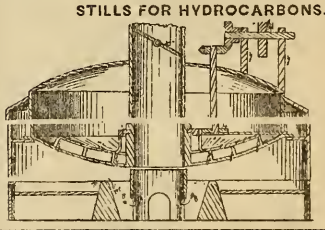
4,513 CRANE, AND ROGERS.
SIGNAL-BOXES FOR FIRE-ALARM TELEGRAPHS.



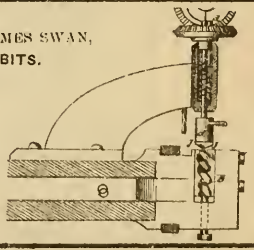
JOHN S. KENDALL,
4,514 RAILWAY STOCK-CARS.



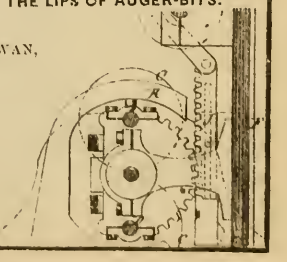
4,515 LOCKHART AND GRACIE,
STILLS FOR HYDROCARBONS.



4,516 JAMES SWAN,
AUGER-BITS.



BENDING THE LIPS OF AUGER-BITS.
JAMES SWAN,
4,517



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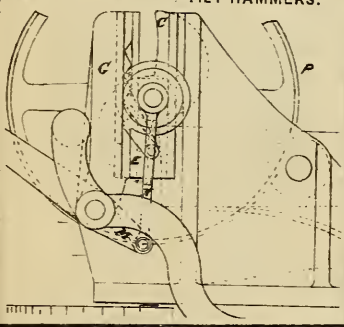
AUGUST 22, 1871.

118,178 BENJAMIN ARNOLD TWIST-DRILL

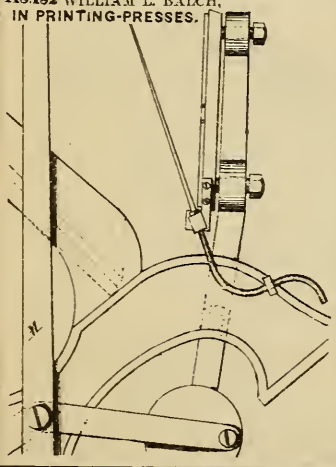
118,179 BENJAMIN ARNOLD. SLOTTING THE SHANKS OF TWIST-DRILLS.

118,180 WILLIAM F. BAADE, READING AND DRAWING-CASE

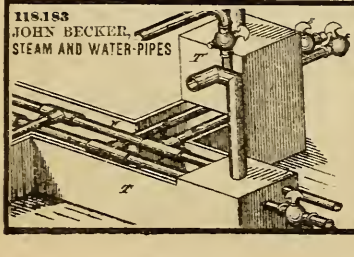
118,181 HUGH BAINES, TILT-HAMMERS.



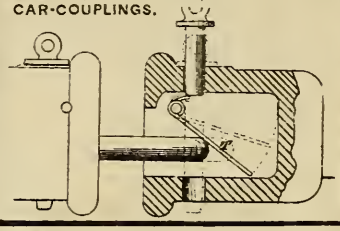
118,182 WILLIAM L. BALCH, IN PRINTING-PRESSES.



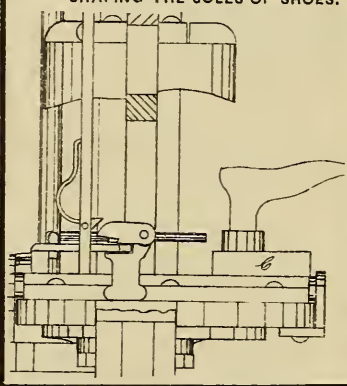
118,183 JOHN BECKER, STEAM AND WATER-PIPES



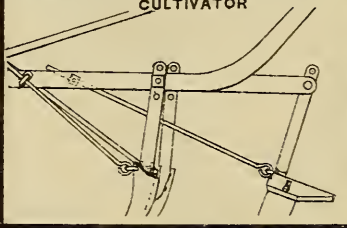
118,184 WILLIAM C. BIBB, CAR-COUPLINGS.



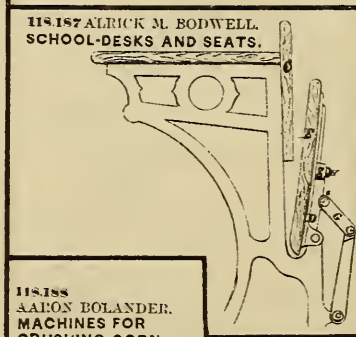
118,185 ELIAS BLANEY, SHAPING THE SOLES OF SHOES.



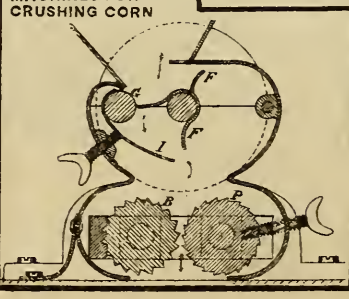
118,186 BENGT C. BLOMSTEN, CULTIVATOR



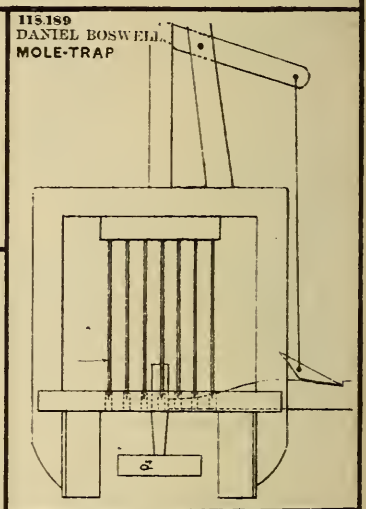
118,187 ALRICK M. BODWELL, SCHOOL-DESKS AND SEATS.



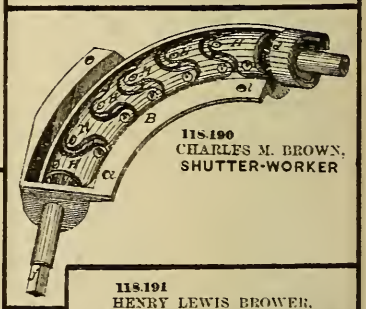
118,188 AARON BOLANDER, MACHINES FOR CRUSHING CORN



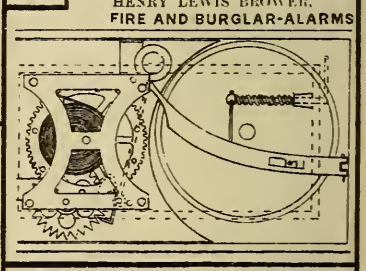
118,189 DANIEL BOSWELL, MOLE-TRAP



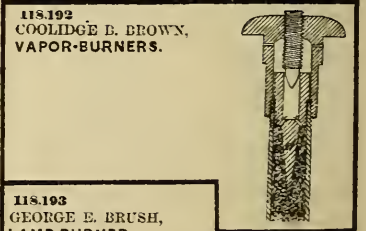
118,190 CHARLES M. BROWN, SHUTTER-WORKER



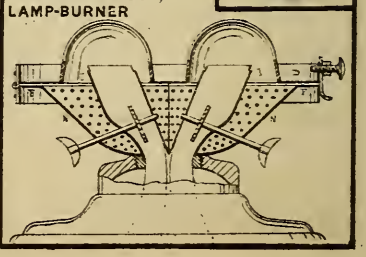
118,191 HENRY LEWIS BROWER, FIRE AND BURGLAR-ALARMS



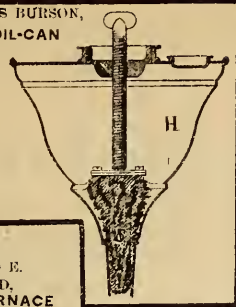
118,192 COOLIDGE B. BROWN, VAPOR-BURNERS.



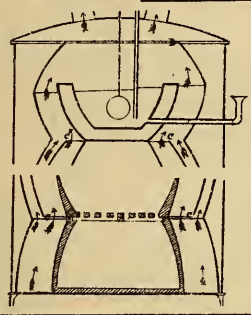
118,193 GEORGE E. BRUSH, LAMP-BURNER



118,194 JAMES BURSON,
OIL-CAN

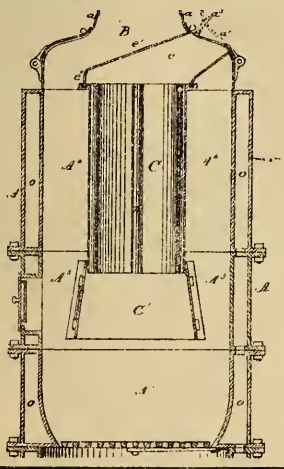


118,195
FERDINAND E. CHATARD,
HOT-AIR FURNACE

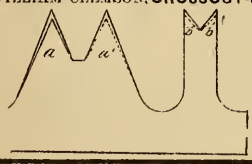


118,196
ALFRED R. CLARK,
POST-HOLE AUGER

118,197
ORLANDO CLARKE.
STEAM-GENERATOR



WILLIAM CLEMSON, CROSSCUT-SAW
118,198



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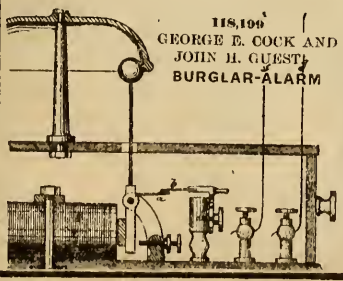
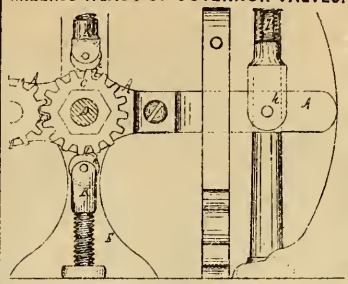
GEORGE E. COCK AND JOHN H. GUEST,
BURGLAR-ALARM

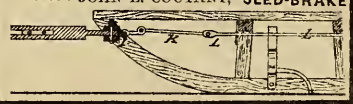


118,200 WILLIAM A. COGSWELL,
MILLING HEADS OF GOVERNOR-VALVES.



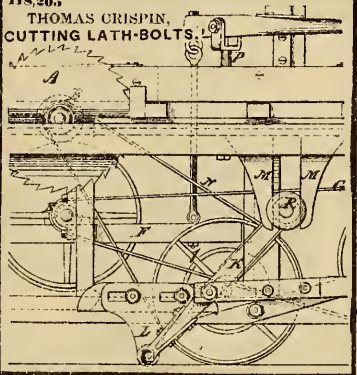
118,201 ORRIN COLLIER,
SHIELDS FOR BOOTS AND SHOES.

118,202 JOHN E. COUTANT, SLED-BRAKE

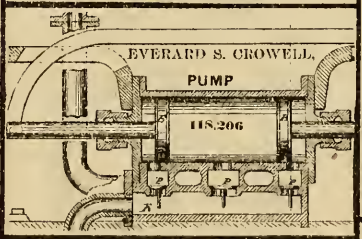


118,203 ALBERT O. CRANE,
HEELS FOR BOOTS AND SHOES.

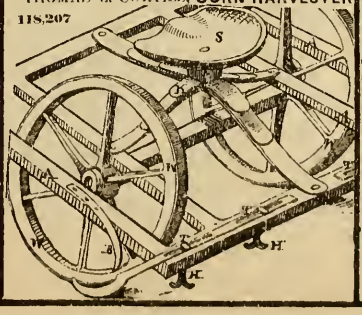
118,205
THOMAS CRISPIN,
CUTTING LATH-BOLTS.



EVERARD S. CROWELL,
PUMP
118,206

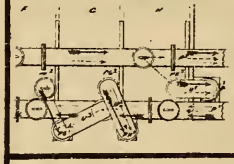


THOMAS E. CURTISS, CORN-HARVESTER
118,207

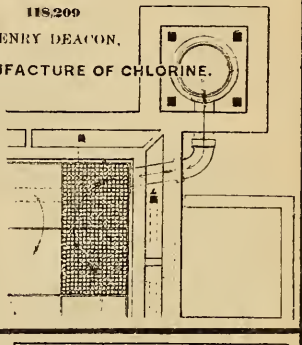


118,208 LEWIS DALEY,
CULTIVATOR-TEETH.

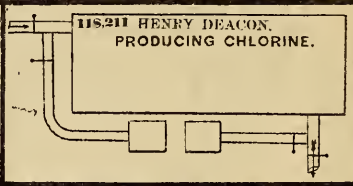
118,210 HENRY DEACON,
BLEACHING-POWDERS.



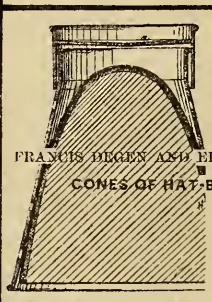
118,209
HENRY DEACON,
MANUFACTURE OF CHLORINE.



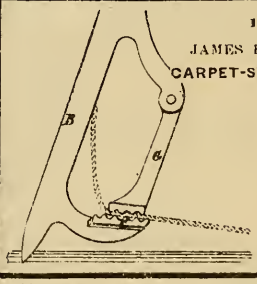
118,211 HENRY DEACON.
PRODUCING CHLORINE.



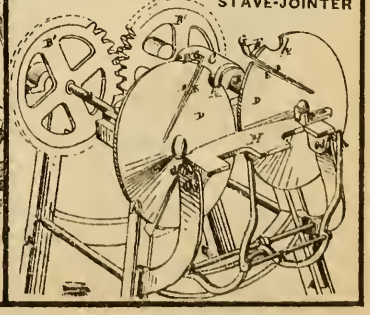
118,213
FRANCIS DEGEN AND EDWIN R. PARSH,
CONES OF HAT-BODY FORMERS.



118,211
JAMES H. DE POE,
CARPET-STRETCHER

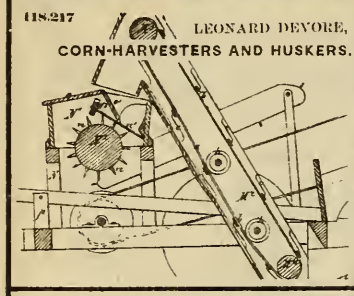


118,215 FREDERIC P. DEUEL,
STAVE-JOINTER

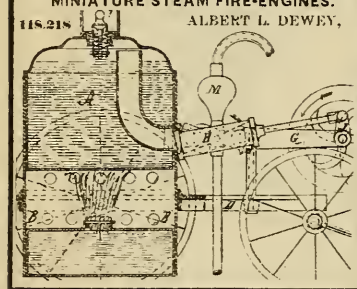


118,216 CHARLES K. DEUTSCH.
WOODEN PAVEMENTS.

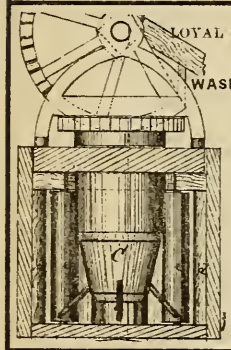
118,217 LEONARD DEVORE,
CORN-HARVESTERS AND HUSKERS.



MINIATURE STEAM FIRE-ENGINES.
118,218 ALBERT L. DEWEY,

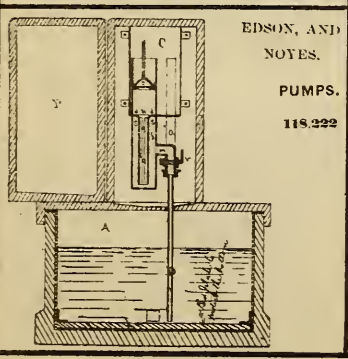


LOYAL M. DODDRIDGE,
WASHING-MACHINE
118,219



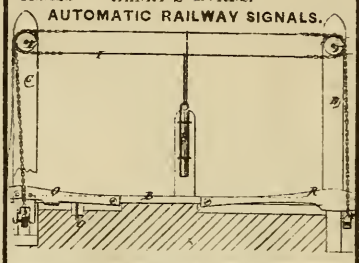
118,220 JAMES DUNSEITH.
FIRE-PROOF FLOORS.

EDSON, AND
NOYES.
PUMPS.
118,222

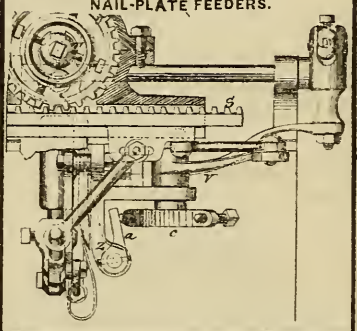


118,221 HENRY H. EDGERTON.
REGISTERS FOR GAS-METERS.

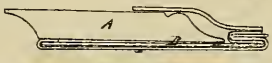
118,223 HENRY S EVANS.
AUTOMATIC RAILWAY SIGNALS.



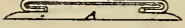
118,224 FERGUSON AND TURNER.
NAIL-PLATE FEEDERS.

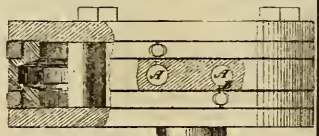


118,225 LOUIS FEUSIER. RULERS.



118,226

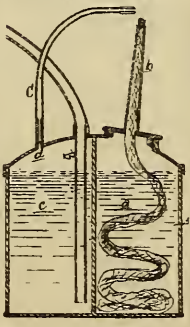




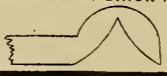
LEONARD FINLAY
BALANCING-PISTONS
118,227

118,228
J. J. M. FREY
SIDE-ARM
SHEATH

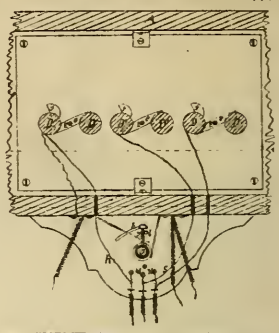
118,229
ALBERT C. FRIESEKE
SOLDERING-LAMPS
AND BLOW-PIPES.



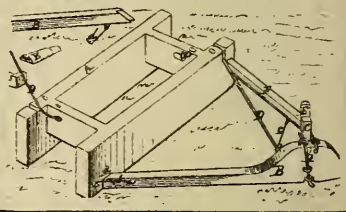
118,230 JAMES GARITY, BRICK-KNIVES.



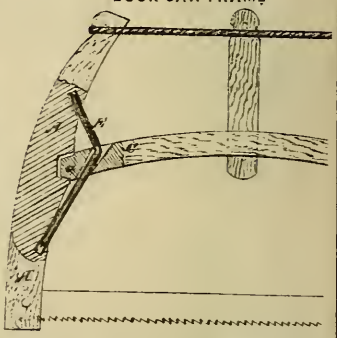
118,231 ELISHA GRAY.
ELECTRO-MAGNETIC ANNUNCIATOR



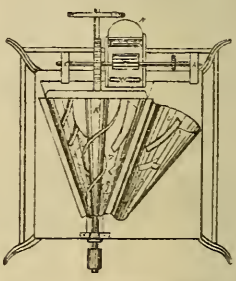
118,232 WILLIAM GREGG.
STAKING HORSE-POWERS.



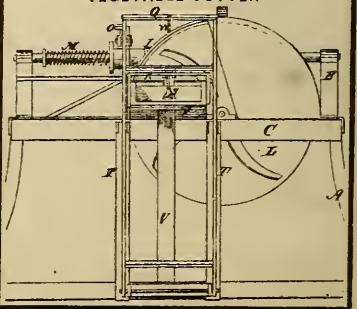
118,233 WILLIAM HANKIN.
BUCK-SAW FRAME



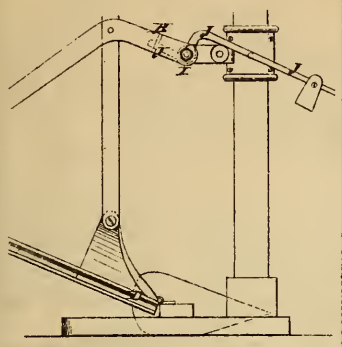
118,234 HARNISH, AND HARNISH,
CUTTING AND GRINDING CORN-FODDER, &c.



118,235 HARNISH, AND HARNISH
VEGETABLE CUTTER

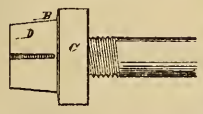


118,236 ORREL M. HARRISON,
HARVESTER-DROPPERS.

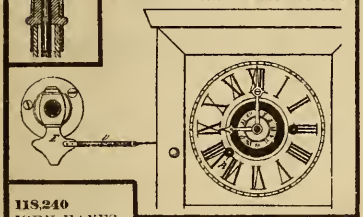


118,237
ALEXANDER HARTMAN,
DENTAL DRILLS.

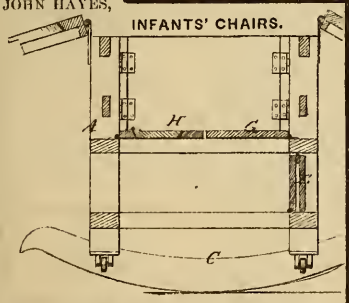
118,238
JOSEPH HARVEY,
LOCK-NUT



118,239
CHARLES H. HARWOOD,
EXTINGUISHING GAS-LIGHTS

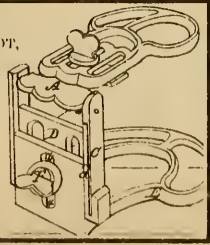


118,240
JOHN HAYES,
INFANTS' CHAIRS.

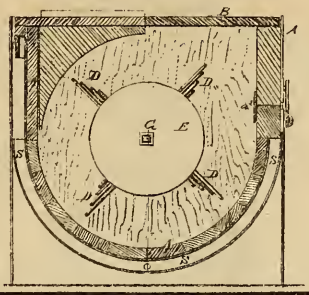


118,211
CASSIUS M. HERREMAN,
STOVE-PIPE CLOTHES-DRIER

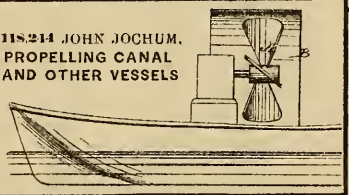
118,242
LOUIS HOFFSTADT,
DENTISTS' ARTICULATORS



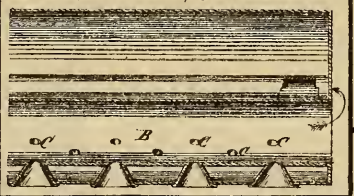
118,243 THOMAS HOLMES, CAKE-MIXERS.



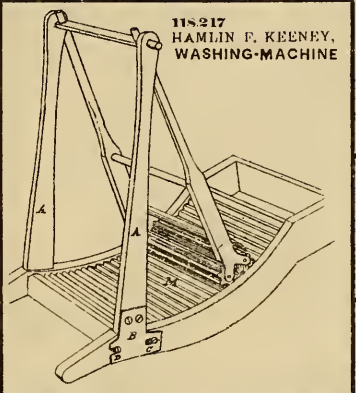
118,214 JOHN JOCHUM,
PROPELLING CANAL
AND OTHER VESSELS



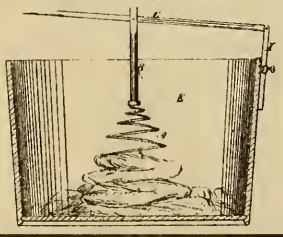
118,216 GEORGE KEEN, STEAM-BOILER



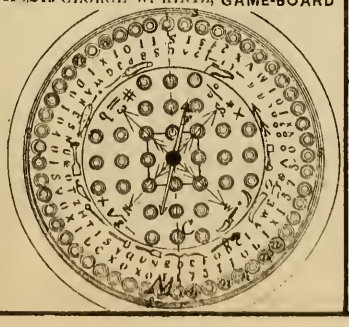
118,217
HAMLIN F. KEENEY,
WASHING-MACHINE



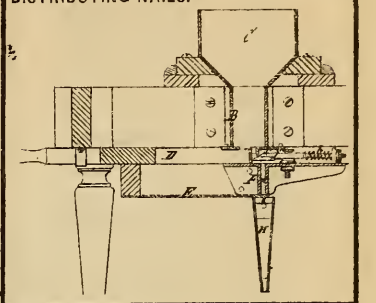
118,218 KENYON, AND HUNTOON,
WASHING-MACHINE



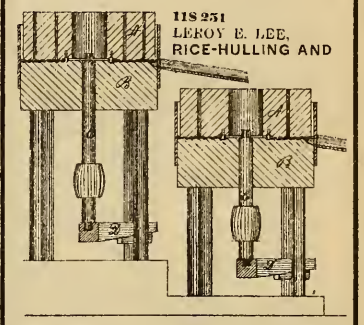
118,219 GEORGE W. KINTZ, GAME-BOARD



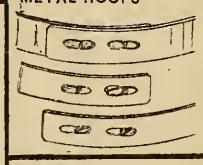
118,250 ALBION KNOWLTON,
DISTRIBUTING NAILS.



118,251
LEROY E. LEE,
RICE-HULLING AND

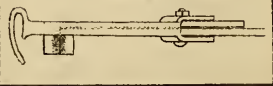


118,252
SYLVESTER LEWIS,
METAL HOOPS

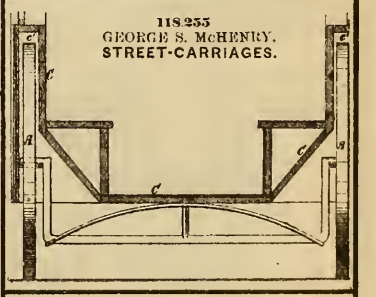


118,253
HARVEY LULL,
SHADE-RACK

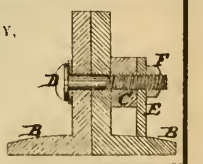
118,254
SAMUEL MATHER,
COTTON-TIE STRETCHER



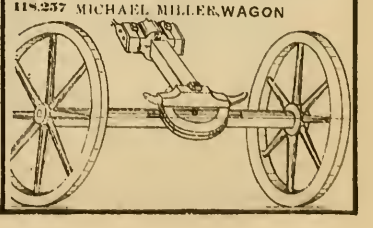
118,255
GEORGE S. McHENRY,
STREET-CARRIAGES.



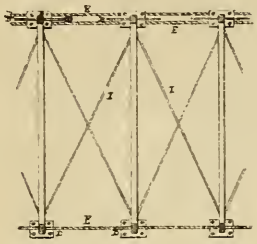
118,256
ALMERON McKENNEY,
LOCKING NUTS.



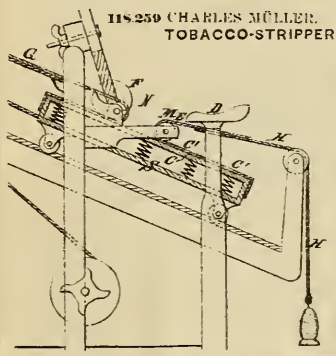
118,257 MICHAEL MILLER, WAGON



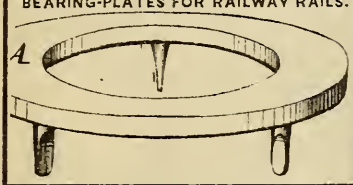
118,258 GEORGE C. MORGAN, BRIDGES.



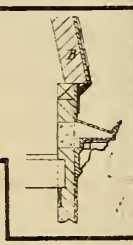
118,259 CHARLES MÜLLER, TOBACCO-STRIPPER



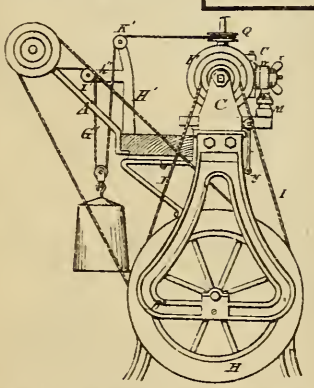
118,260 ELIJAH MYRICK, BEARING-PLATES FOR RAILWAY RAILS.

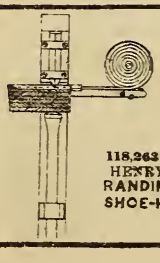


118,261 DUDLEY NEWTON, CURB-ROOFS.



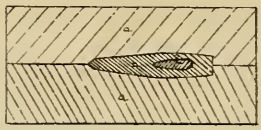
118,262 ULRICH OPPERMANN, LATHE AND GEAR-CUTTERS.



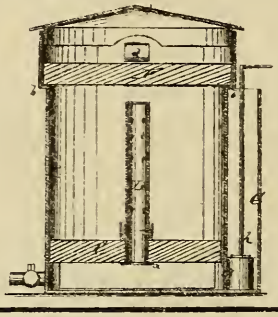


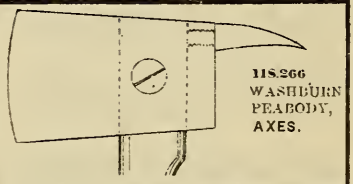
118,263 HENRY F. PACKARD, RANDING BOOT AND SHOE-HEELS.

118,264 PALMER AND HUBBARD, MANUFACTURING AXES



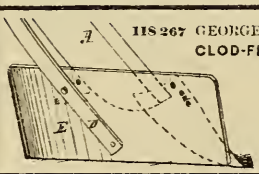
118,265 PARKS AND GEORGE A. HYNDS, WASH-BOILERS.





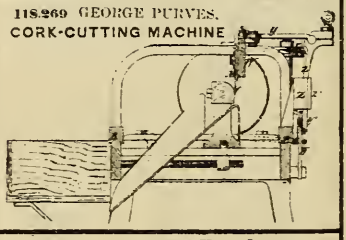
118,266 WASHBURN PEABODY, AXES.

118,267 GEORGE L. PERRY, CLOD-FENDERS.

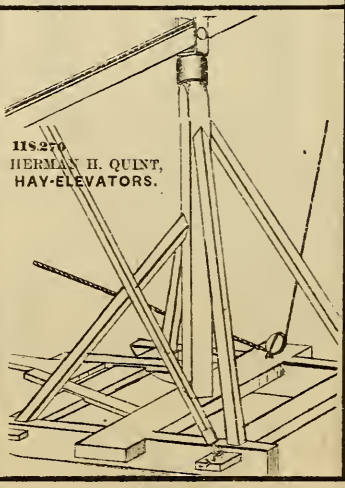


118,268 CHANDLER POOR, DENTAL DRILLS.

118,269 GEORGE PURVES, CORK-CUTTING MACHINE

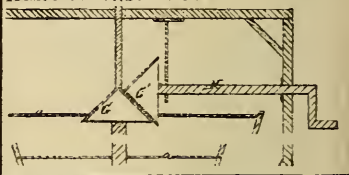


118,270 HERMAN H. QUINT, HAY-ELEVATORS.



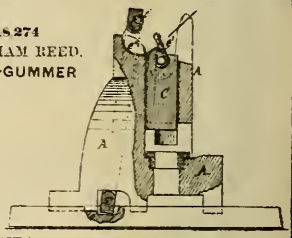
118,271 EMIL RATH, STAIR-RODS.

REED AND JONES, 118,272 CLOTHES-DRIERS.

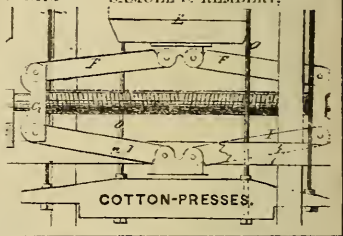


118,273 WILLIAM REED, TREADLE-POWER

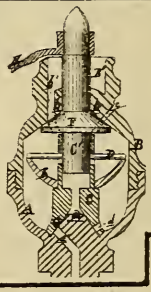
118,274 WILLIAM REED, SAW-GUMMER



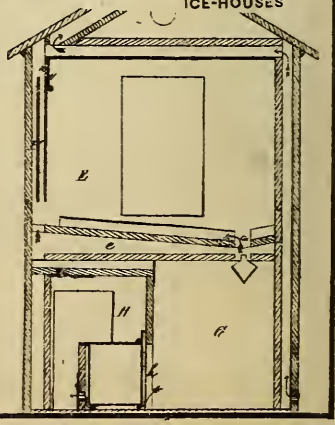
118,275 SAMUEL S. REMBERT, COTTON-PRESSES.

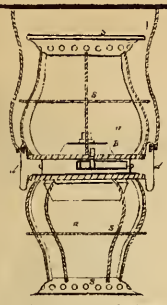


118,276 WILLIAM RIDER, OIL-CUP



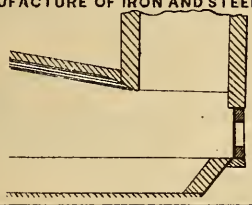
118,277 HENRY A. ROBERTS, ICE-HOUSES



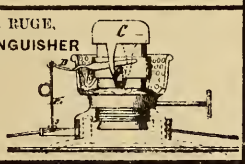


118,278 ROBERTS AND FISKE, SIGNAL-LANTERN

118,279 ROSS AND CLEMENS. MANUFACTURE OF IRON AND STEEL.

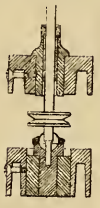


WILLIAM G. RUGE, LAMP-EXTINGUISHER 118,280

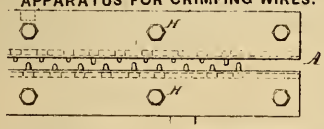


118,281 ELMINA C. RYDING, TRUSS-HOOP

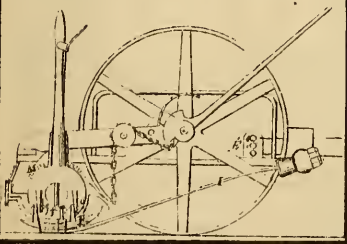
118,282 JACOB H. SAWYER, SPINDLE-BEARINGS



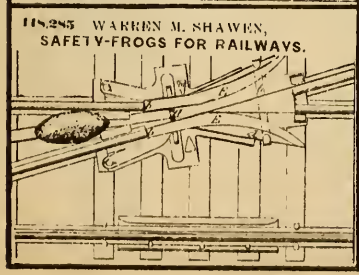
118,283 CHARLES P. SEITZINGER, APPARATUS FOR CRIMPING WIRES.



MOSES R. SHALTERS AND SAMUEL RAY, 118,284 MOWING-MACHINES.



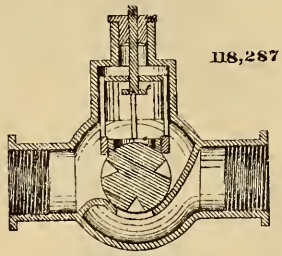
118,285 WARREN M. SHAWEN, SAFETY-FROGS FOR RAILWAYS.



118,286 JOHN L. SHEPPARD, BALE-TIES.

GEORGE W. SHIELDS, GLOBE AND CHECK-VALVES.

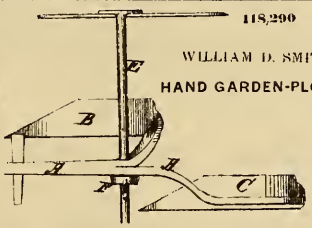
118,287



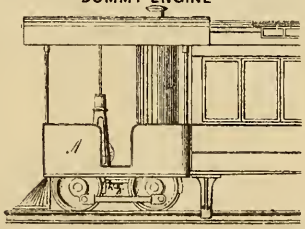
118,288 GEORGE SMITH, BILLIARD-TABLE

118,289 GEORGE H SMITH, MACHINES FOR MAKING "EXCELSIOR."

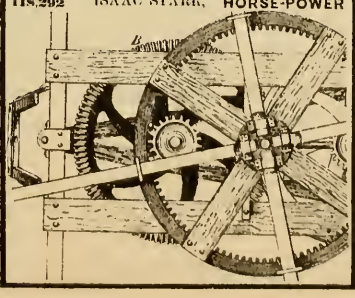
118,290 WILLIAM D. SMITH, HAND GARDEN-PLOW



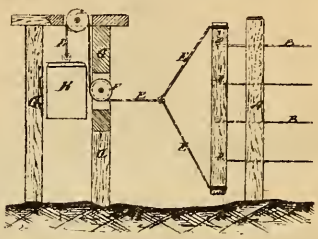
118,291 CHRISTIAN GEORGE SPENGLER, DUMMY-ENGINE



118,292 ISAAC STARR, HORSE-POWER



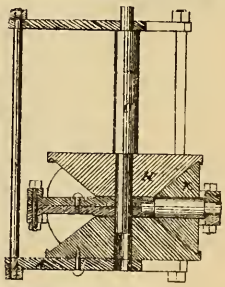
EBENEZER BURNET STEPHENS. 118,293 WIRE-STRETCHERS.

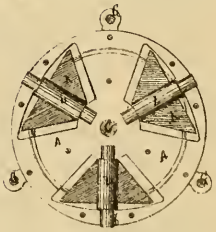


GEORGE D. STEVENS, NECK-CHAINS.

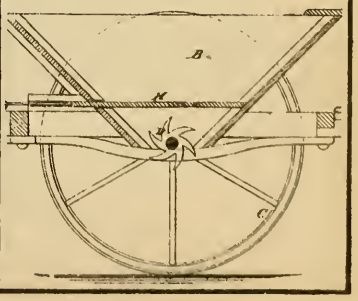
118,294

118,297 JOHN SWITZER, ANTI-FRICTION BEARINGS

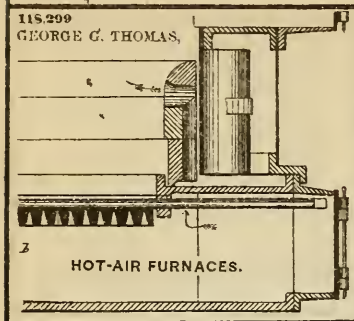




118,298 BENJAMIN TEAGUE, MANURE-CART

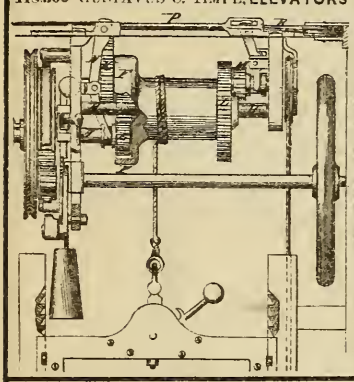


118,299
GEORGE C. THOMAS,

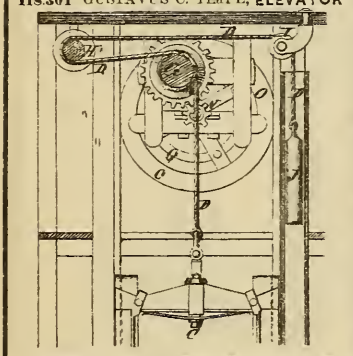


HOT-AIR FURNACES.

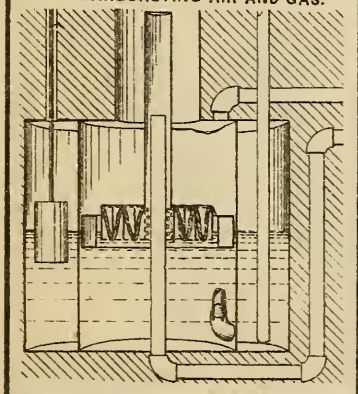
118,300 GUSTAVUS C. TIMPE, ELEVATORS



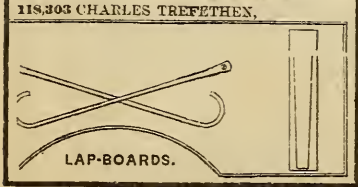
118,301 GUSTAVUS C. TIMPE, ELEVATOR



118,302 OAKES TIRRILL,
CARBURETING AIR AND GAS.

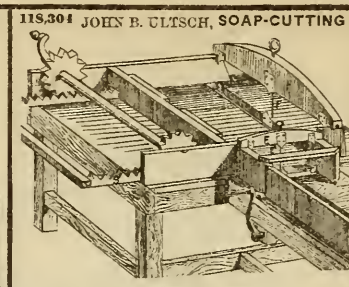


118,303 CHARLES TREFETHEN,

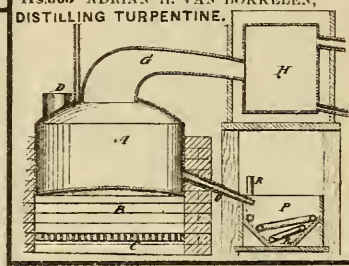


LAP-BOARDS.

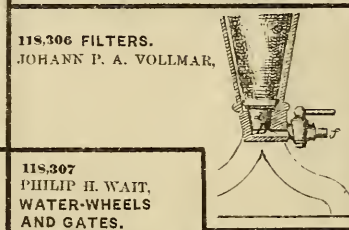
118,304 JOHN B. ULTSCH, SOAP-CUTTING



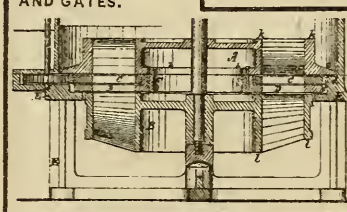
118,305 ADRIAN H. VAN BOKKELEN,
DISTILLING TURPENTINE.



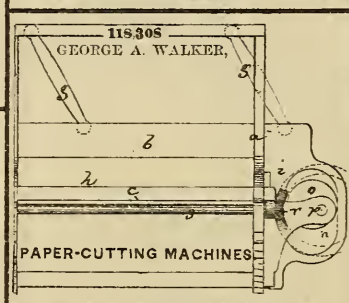
118,306 FILTERS.
JOHANN P. A. VOLLMAR,



118,307
PHILIP H. WAIT,
WATER-WHEELS
AND GATES.

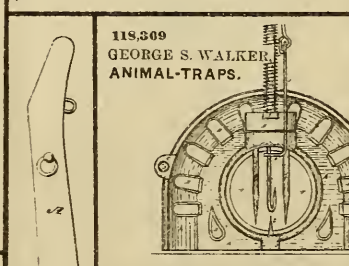


118,308
GEORGE A. WALKER,



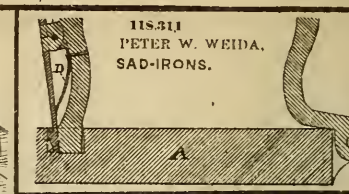
PAPER-CUTTING MACHINES

118,309
GEORGE S. WALKER,
ANIMAL-TRAPS.

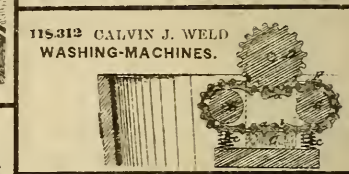


118,310
PETER B. WATSON.
HAMES FOR HARNESS.

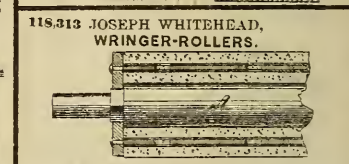
118,311
PETER W. WEIDA,
SAD-IRONS.



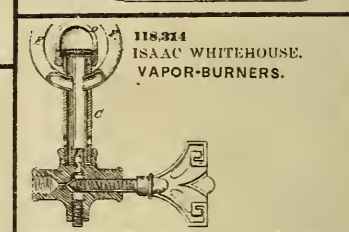
118,312 CALVIN J. WELD
WASHING-MACHINES.

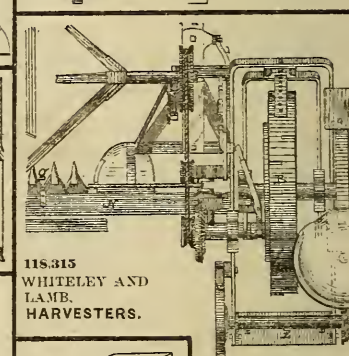


118,313 JOSEPH WHITEHEAD,
WRINGER-ROLLERS.



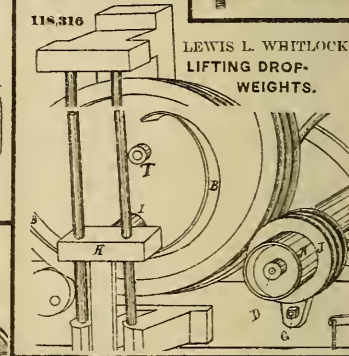
118,314
ISAAC WHITEHOUSE.
VAPOR-BURNERS.



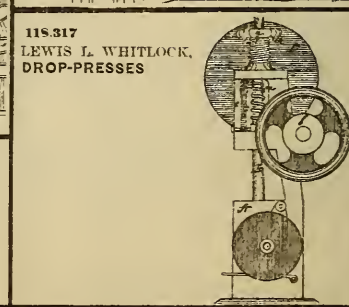


118,315
WHITELEY AND
LAMB.
HARVESTERS.

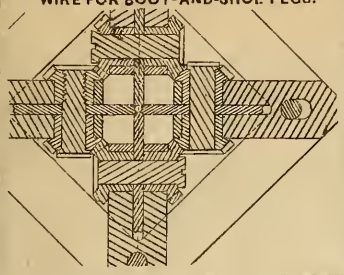
118,316
LEWIS L. WHITLOCK,
LIFTING DROP-
WEIGHTS.



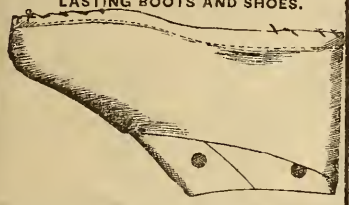
118,317
LEWIS L. WHITLOCK,
DROP-PRESSES



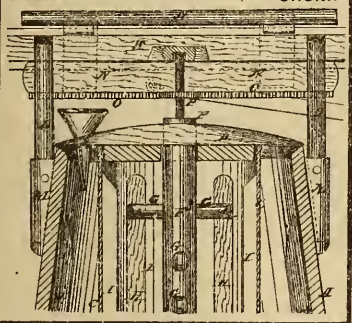
118,318 WILLIAM WICKERSHAM,
WIRE FOR BOOT-AND-SHOE PEGS.



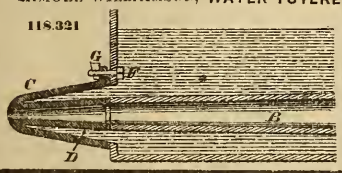
118,319 WILLIAM WICKERSHAM,
LASTING BOOTS AND SHOES.



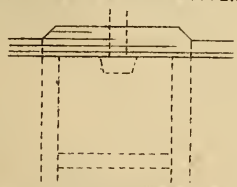
118,320 ELI WILLCOX, CHURN



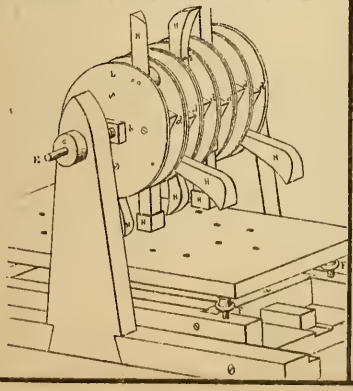
SAMUEL WILLIAMSON, WATER-TUYERE
118,321



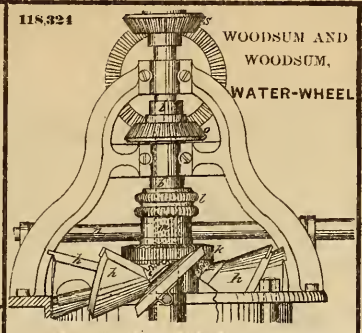
118,322 JOHN T. WILSON,
MAKING DRAW-BARS OR BUFFERS.



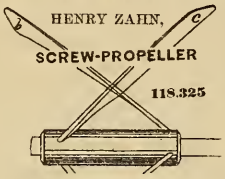
118,323 THOMAS WOODS,
MACHINES FOR DRESSING STONE.



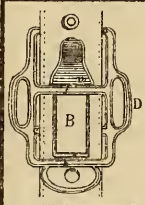
118,324 WOODSUM AND WOODSUM,
WATER-WHEEL



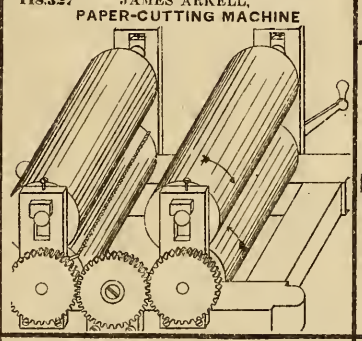
HENRY ZAHN,
SCREW-PROPELLER
118,325



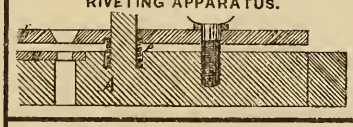
118,326
CHARLES S. ABEEL,
HARNESS-TUG BUCKLE



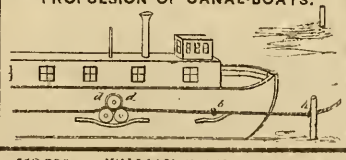
118,327 JAMES ARKELL,
PAPER-CUTTING MACHINE



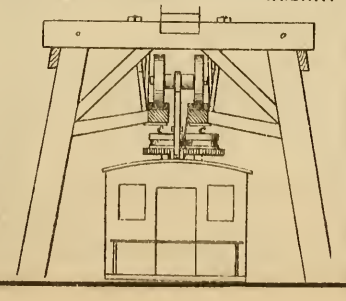
118,328 JAMES BERRY,
RIVETING APPARATUS.



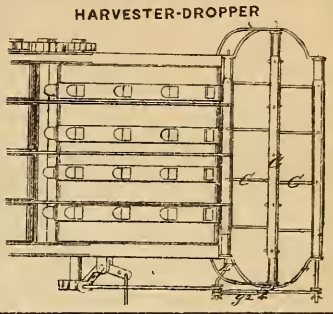
118,329 WILLIAM C. BIBB,
PROPULSION OF CANAL-BOATS.



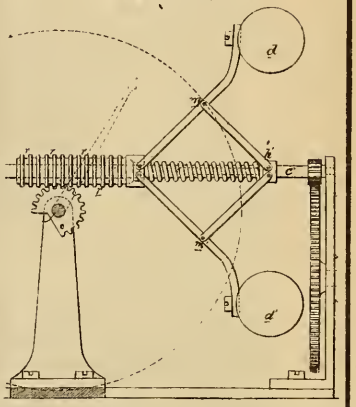
118,330 WILLIAM C. BIBB, RAILWAY

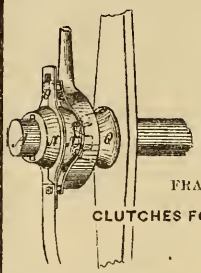


118,331 BICKEL AND LEIBOLD,
HARVESTER-DROPPER



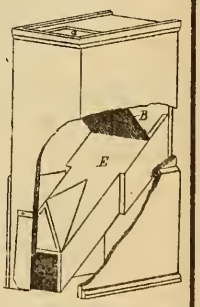
118,332 HUGO BILGRAM,
SPEED-INDICATORS.



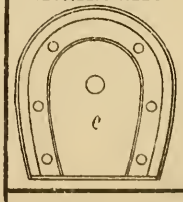


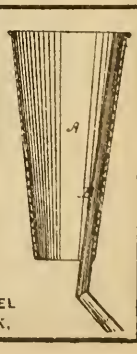
118,333
FRANK BRAMER,
CLUTCHES FOR HARVESTERS.

118,334.
BRADY AND WALL,
ASH-SIFTER



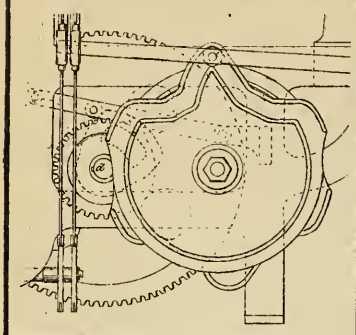
118,335
EDWARD P. BRAY,
METALLIC HEEL



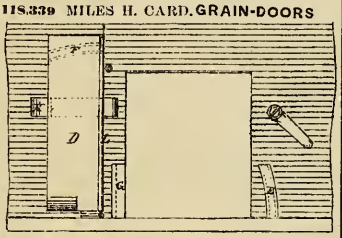


118,337
BUNG-FUNNEL
JAMES BUCK.

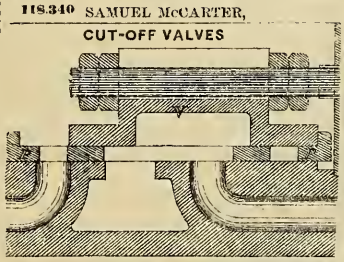
118,338 JOHN P. BUZZELL, PILE CARPETS



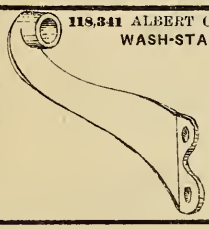
118,339 MILES H. CARD, GRAIN-DOORS



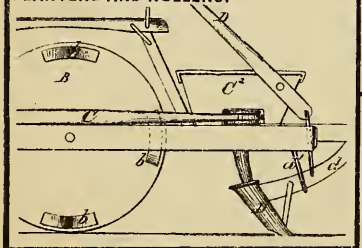
118,340 SAMUEL McCARTER, CUT-OFF VALVES



118,341 ALBERT CARY, WASH-STAND BRACKETS.

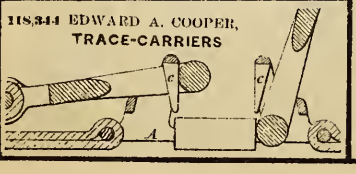


118,342 JOHN A. COMSTOCK, PLANTERS AND ROLLERS.

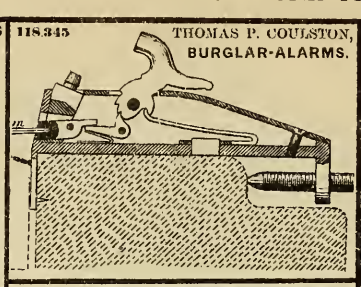


118,343 WALTER M. CONGER, DUST-PANS

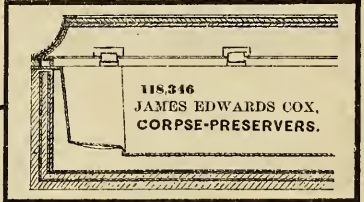
118,344 EDWARD A. COOPER, TRACE-CARRIERS



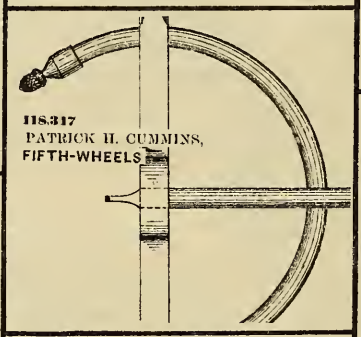
118,345 THOMAS P. COULSTON, BURGLAR-ALARMS.



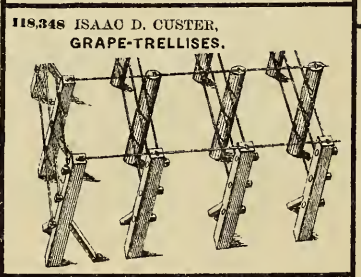
118,346 JAMES EDWARDS COX, CORPSE-PRESERVERS.



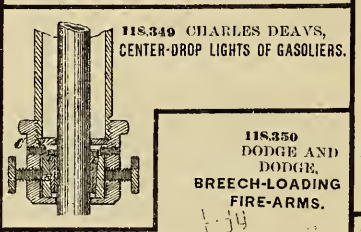
118,347 PATRICK H. CUMMINS, FIFTH-WHEELS.



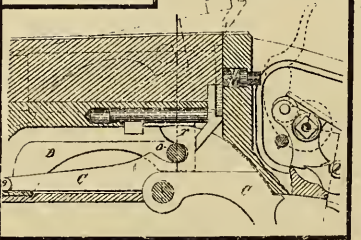
118,348 ISAAC D. CUSTER, GRAPE-TRELLISES.



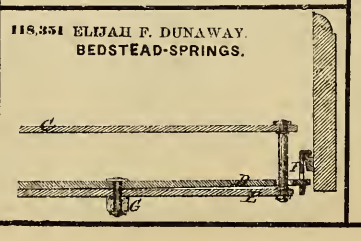
118,349 CHARLES DEAVS, CENTER-DROP LIGHTS OF GASOLIERS.



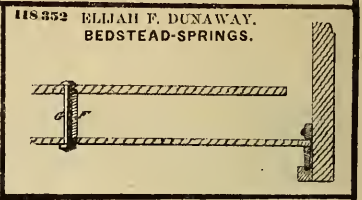
118,350 DODGE AND DODGE, BREECH-LOADING FIRE-ARMS.



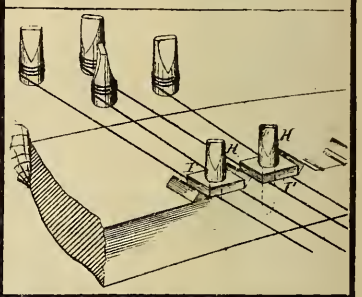
118,351 ELIJAH F. DUNAWAY, BEDSTEAD-SPRINGS.



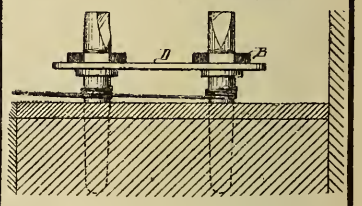
118,352 ELIJAH F. DUNAWAY, BEDSTEAD-SPRINGS.



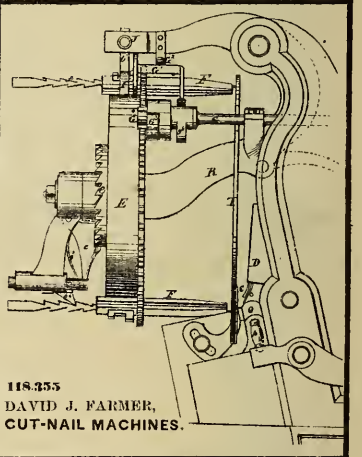
118,353 ANTHONY FAAS, PIANOS.



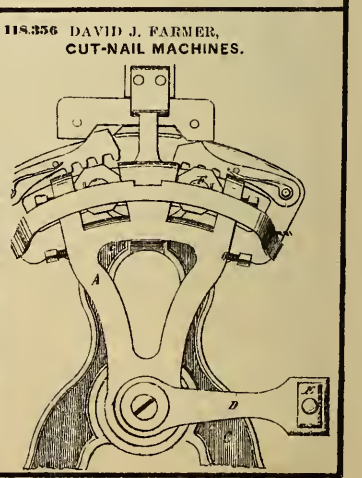
118,354 ANTHONY JOSEPH FAAS, JR. TUNING-PINS FOR PIANOS.



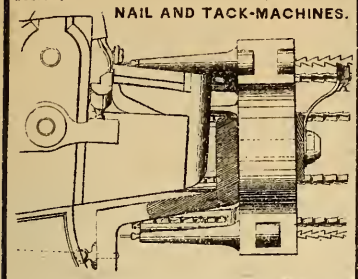
118,355 DAVID J. FARMER, CUT-NAIL MACHINES.



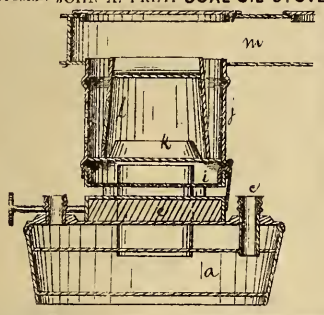
118,356 DAVID J. FARMER, CUT-NAIL MACHINES.



118,357 DAVID J. FARMER. NAIL AND TACK-MACHINES.

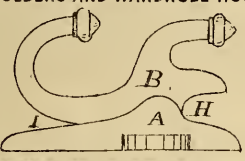


118,358 JOHN A. FREY. COAL-OIL STOVE

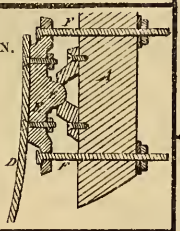


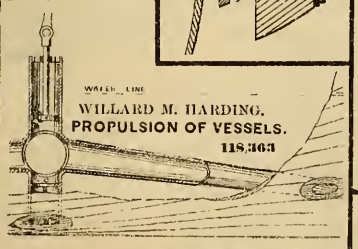
118,360 CHARLES R. GILBERT, GARDEN-HOES.

118,361 CURTIS GODDARD, LINE-HOLDERS AND WARDROBE-HOOKS.

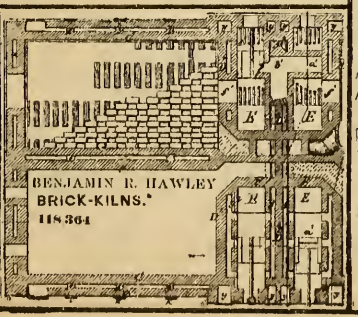


118,362 THOMAS F. HAMILTON. CULTIVATORS AND SHOVEL-PLOWS.



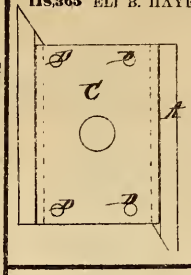


WILLARD M. HARDING. PROPULSION OF VESSELS. 118,363

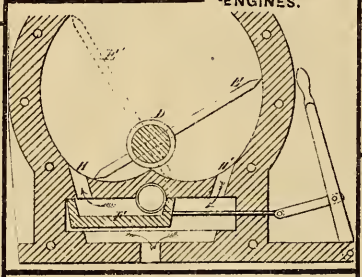


BENJAMIN R. HAWLEY BRICK-KILNS. 118,364

118,365 ELI B. HAYES, CUTTER-HEADS

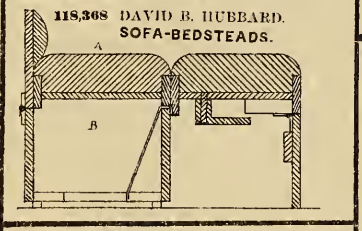


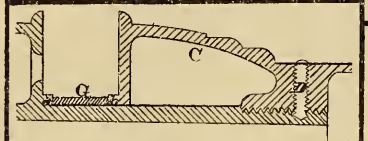
118,366 CONSTANTINE ALEXANDER HEGE, ROTARY STEAM-ENGINES.



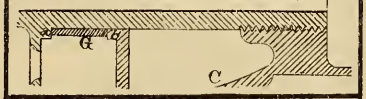
118,367 JOHN HOLLAND. PEN-HOLDERS.

118,368 DAVID B. HUBBARD. SOFA-BEDSTEADS.





118,369 ELLSWORTH D. IVES, HUBS FOR WHEELS OF VEHICLES.



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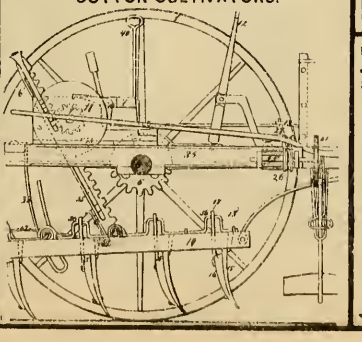
118,371 MIREYBEAU R. LAMAR COTTON-CULTIVATORS.



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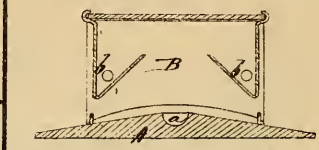

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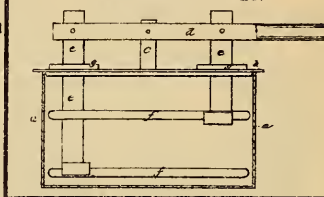

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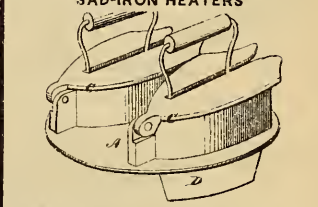
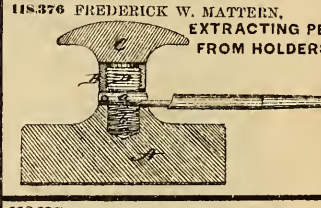


118,376 FREDERICK W. MATTERN, EXTRACTING PENS FROM HOLDERS.



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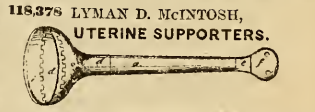
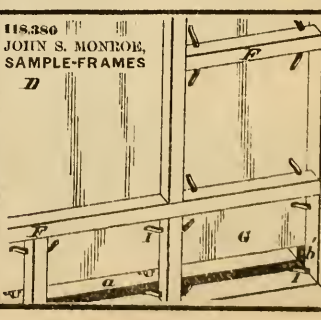
118,378 LYMAN D. McINTOSH, UTERINE SUPPORTERS.

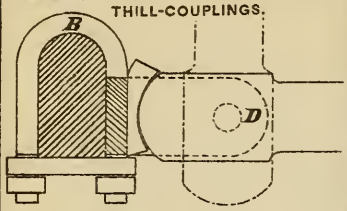


118,379 HELEM MERRILL, SEPARATORS FOR GOLD ORES.

118,380 JOHN S. MONROE, SAMPLE-FRAMES



118,381 JEHU C. MOORE.
THILL-COUPLINGS.



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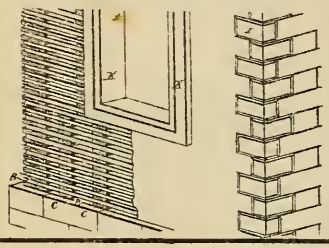
CONSTRUCTION OF BUILDINGS



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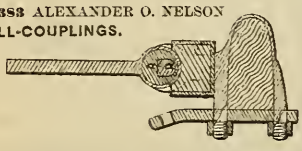
THILL-COUPLINGS.



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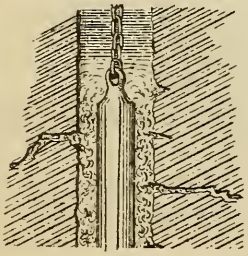
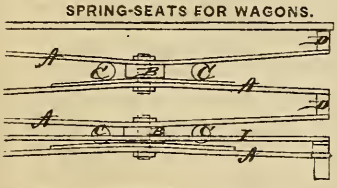
HEATERS FOR OIL-WELLS.



118,385 AMBROSE S. NEWMAN
SPRING-SEATS FOR WAGONS.



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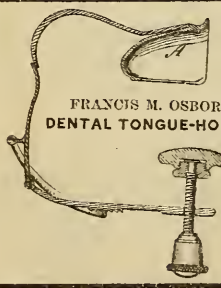
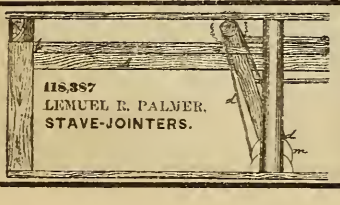
FRANCIS M. OSBORN.
DENTAL TONGUE-HOLDERS.

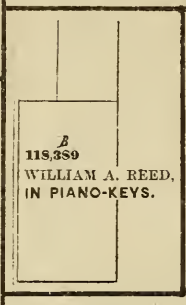


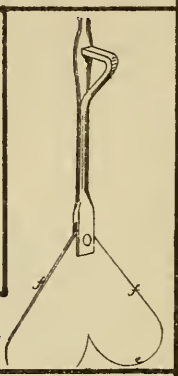


118,387
LEMUEL R. PALMER.
STAVE-JOINTERS.

118,388 JOSEPH A. PUTT.
THILL-HOLDERS FOR HARNESS.

118,389
WILLIAM A. REED,
IN PIANO-KEYS.





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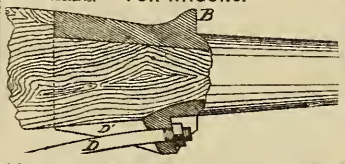
GEORGE REIBER.

118,391
HEZEKIAH H. RICHARDS.
THIMBLE-SKEINS FOR WAGONS.



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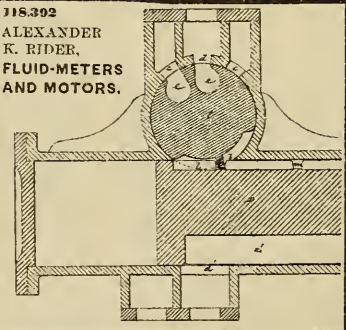
ALEXANDER K. RIDER.
FLUID-METERS AND MOTORS.



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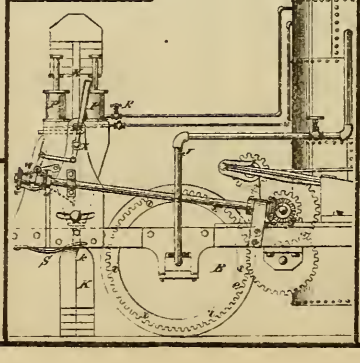
GATES.

118,395
ABBOTT Q. ROSS.
MACHINES FOR ROLLING



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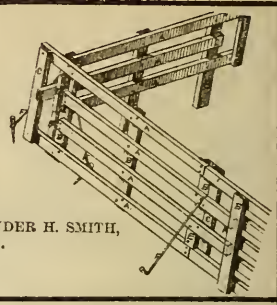
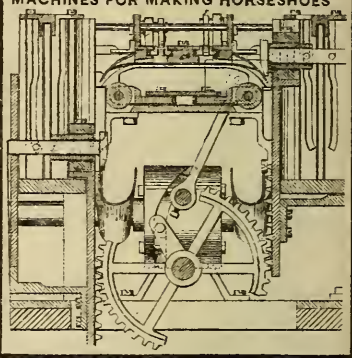


ALEXANDER H. SMITH,
FENCES.

118,399 JOHN H. SNYDER.
MACHINES FOR MAKING HORSESHOES



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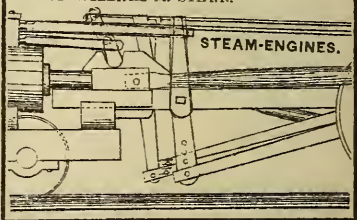
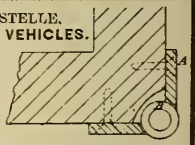
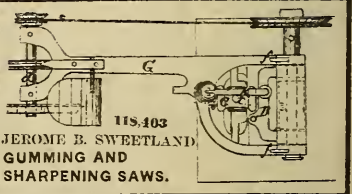
KNOBS FOR PICTURE-NAILS.

118,401 WILLIAM M. STARR.
STEAM-ENGINES.



118,402 DAVID D. STELLE.
RUB-IRONS FOR VEHICLES.





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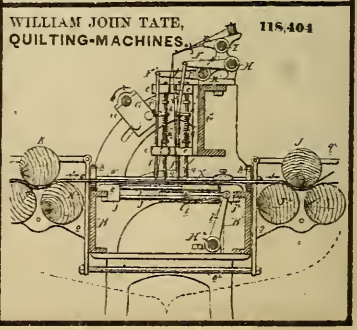
JEROME B. SWEETLAND.
GUMMING AND SHARPENING SAWS.

WILLIAM JOHN TATE,
QUILTING-MACHINES.
118,404



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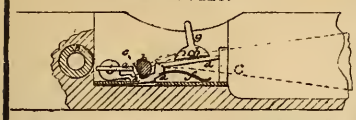
LOOM-SHUTTLES.



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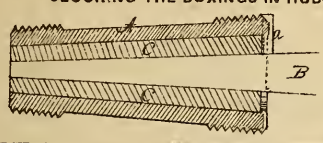
SECURING THE BOXINGS IN HUBS.



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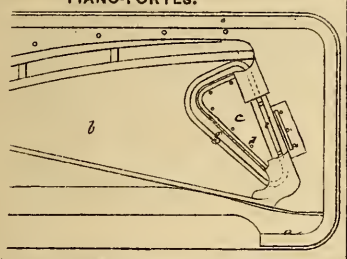
PIANO-FORTES.



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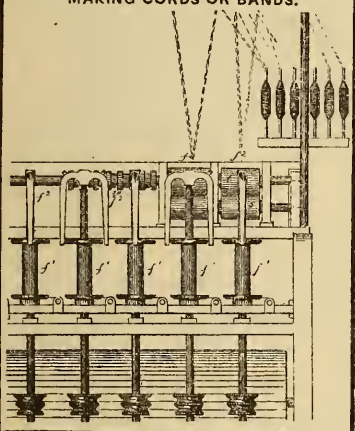
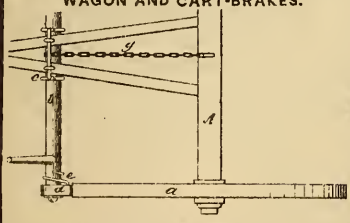
MAKING CORDS OR BANDS.



118,409 JOSHUA VEASEY.
WAGON AND CART-BRAKES.



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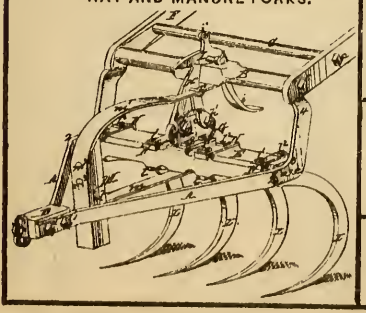
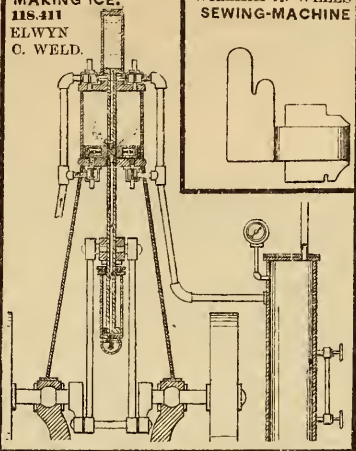
HAY AND MANURE-FORKS.



APPARATUS FOR MAKING ICE.
118,411 ELWYN C. WELD.



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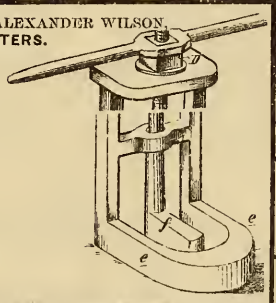
SEWING-MACHINE

118,413 ALEXANDER WILSON,
RAIL-LIFTERS.



118,414 WILLIAM WILSON
SHOEMAKERS' FOOT-MEASURES

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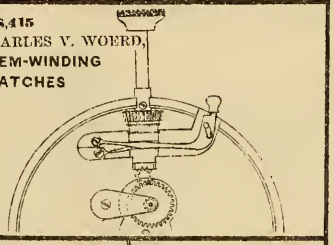
CHARLES V. WOERD,
STEM-WINDING
WATCHES



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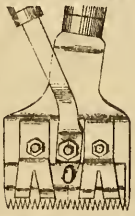
ROBERT WYATT
CLIPPING-SHEAR



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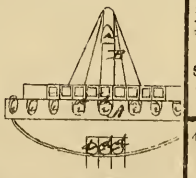
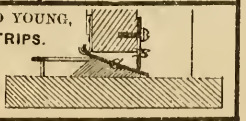
CHARLES H. WOLCOTT,
CLOTHES-RACKS.

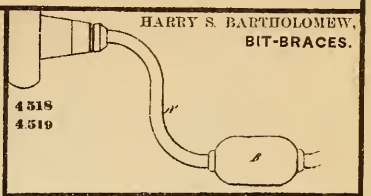


118,418 DAVID YOUNG,
WEATHER-STRIPS.



118,419 ROSTO ORRIN WOOD,
CUTTING-SHEARS.

HARRY S. BARTHOLOMEW,
BIT-BRACES.
4,518
4,519



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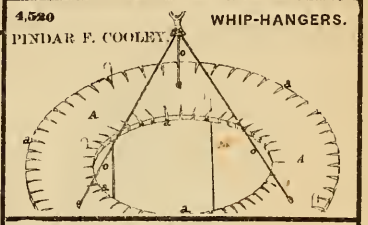
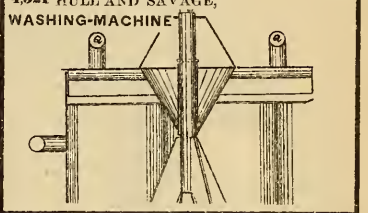
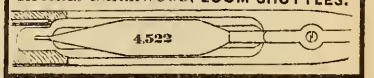
PINDAR F. COOLEY.
WHIP-HANGERS.



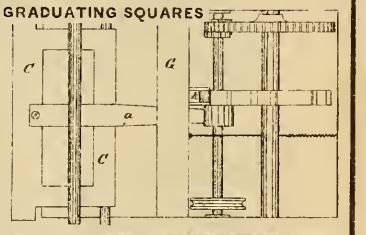
4,521 HULL AND SAVAGE,
WASHING-MACHINE.



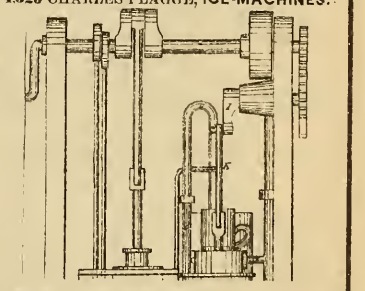
THOMAS ISHERWOOD, LOOM-SHUTTLES.
4,522



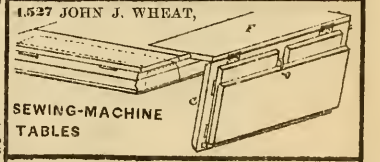
4,523 NORMAN MILLINGTON
GRADUATING SQUARES



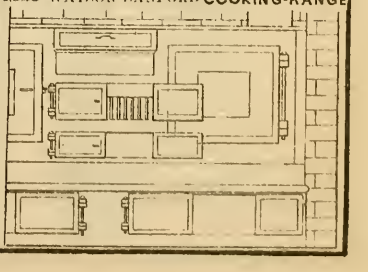
4,525 CHARLES PLAGGE, ICE-MACHINES.



4,527 JOHN J. WHEAT,
SEWING-MACHINE
TABLES



4,526 WATSON SANFORD COOKING-RANGE



118,421. 118,438.

ILLUSTRATIONS OF PATENTS

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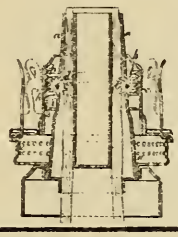
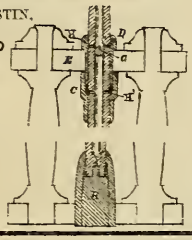
AUGUST 29, 1871.

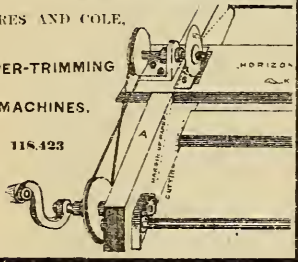
118,421 LEWIS J. ATWOOD. LAMPS.

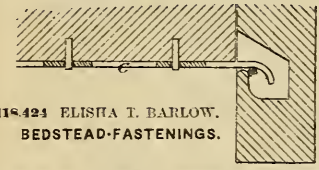


CLARK L. AUSTIN. SPINDLES AND BEARINGS 118,422



AYRES AND COLE. PAPER-TRIMMING MACHINES. 118,423

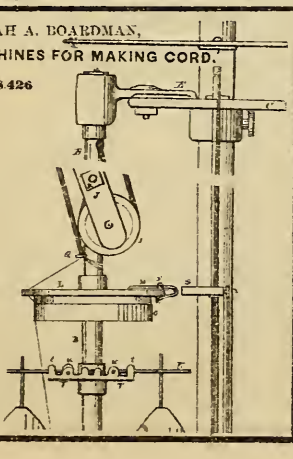




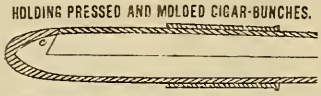
118,424 ELISHA T. BARLOW. BEDSTEAD-FASTENINGS.

118,425 BENJAMIN B. BLACKWELL. PRINTERS' FURNITURE.

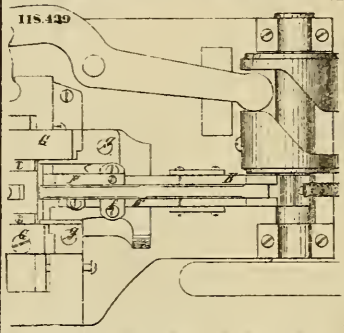
SARAH A. BOARDMAN. MACHINES FOR MAKING CORD. 118,426



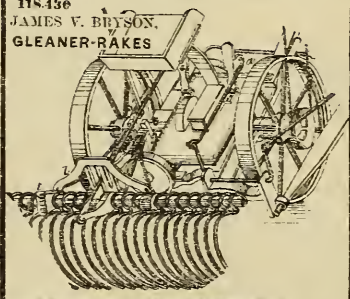
118,428 WILLIAM D. BREWER. HOLDING PRESSED AND MOLDED CIGAR-BUNCHES.



FREDERICK BRUSO. SPIKE-MACHINE 118,429

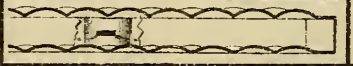


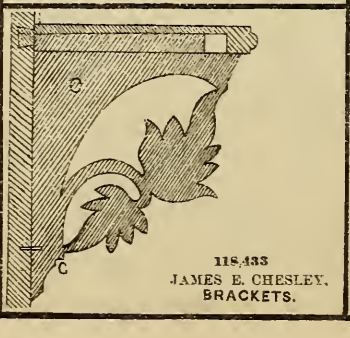
118,430 JAMES V. BRYSON. GLEANER-RAKES



118,431 ELISHA P. H. CAPRON. CLOTHES-WRINGERS.

118,432 EDWARD CAULFIELD. STEAM-HEATERS.

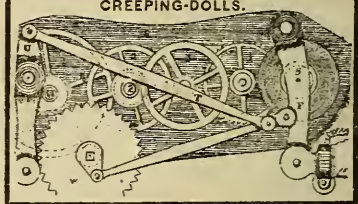




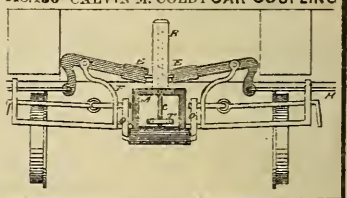
118,433 JAMES E. CHESLEY. BRACKETS.

118,434 JAMES M. CLARK. PEN-AND-PENCIL CASES.

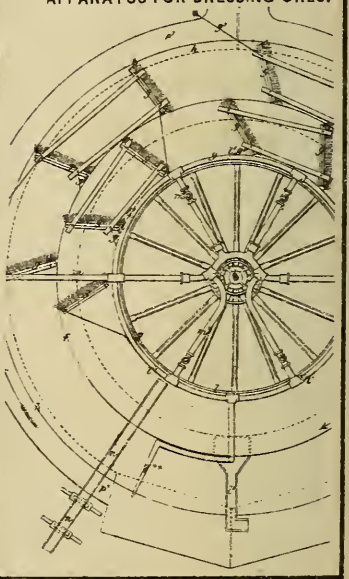
118,435 GEORGE PEMBERTON CLARKE. CREEPING-DOLLS.



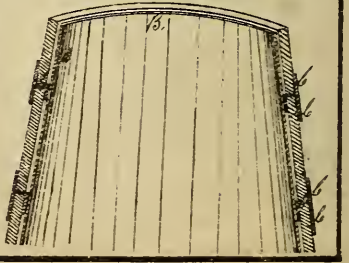
118,436 CALVIN M. COLBY CAR-COUPLING



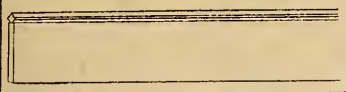
118,437 CHARLES FREDERICK COLLOM. APPARATUS FOR DRESSING ORES.



118,438 JAMES B. DAVENPORT. BARRELS, TANKS, AND CASKS



118,439 AUGUSTINE J. H. DUGANNE,
PRINTERS' COLUMN-RULES.



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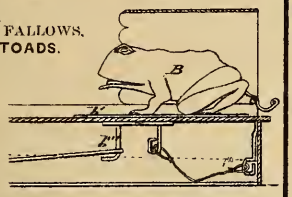
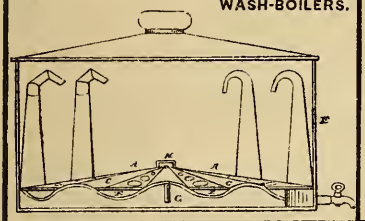
JAMES FALLOWS,
TOY-TOADS.



118,442 BARNARD T. FELLOWS,
WASH-BOILERS.



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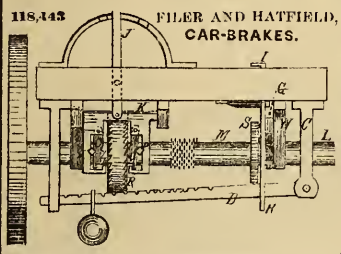
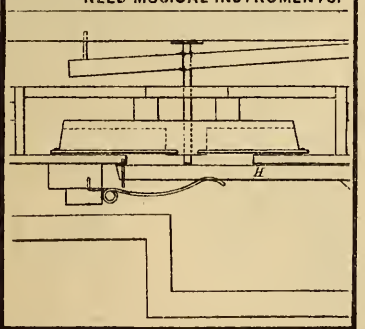
CAR-BRAKES.

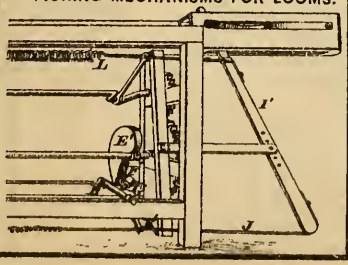


118,444 FOSTER, AND SAYLOR,
RUBBER BOOTS.

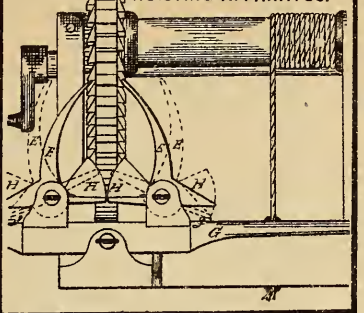
118,445 JOSEPH FOSTER,
REED MUSICAL INSTRUMENTS.



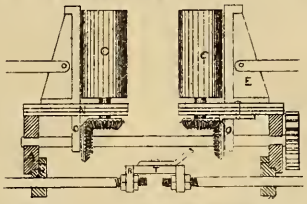
118,446 HENRY R. FRY,
PICKING MECHANISMS FOR LOOMS.



118,447 EMERY R. GARD,
HOISTING APPARATUS.

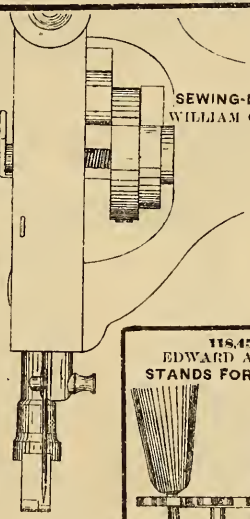


118,448 LUTHER W. GREEN,
DEVICES FOR SAWING-MACHINES.



118,449 JOHN JAMES GREENOUGH,
APPARATUS FOR GROOMING HORSES.

118,450
SEWING-MACHINES.
WILLIAM O. GROVER,



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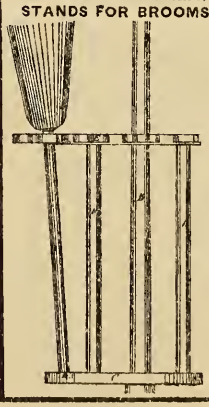
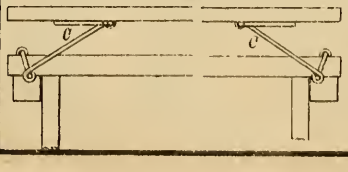
EDWARD A. HARRIS,
STANDS FOR BROOMS



118,452 BENJAMIN HERSHEY,
SEAT-SPRINGS FOR VEHICLES.



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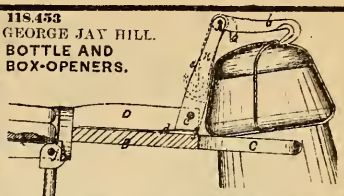
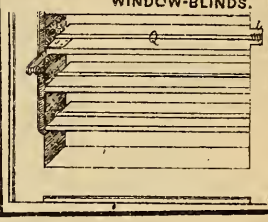
GEORGE JAY HILL,
BOTTLE AND
BOX-OPENERS.



118,454 ISAAC H. HOBBS,
WINDOW-BLINDS.



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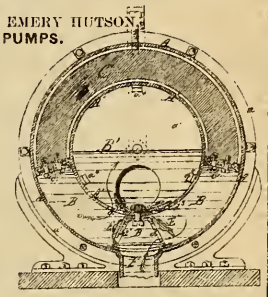
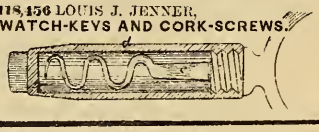
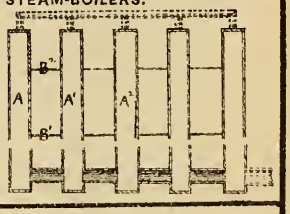
CHARLES EMERY HUTSON,
ROTARY PUMPS.



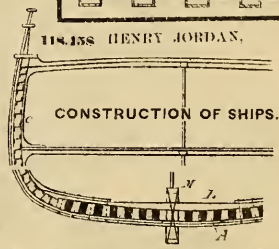
118,456 LOUIS J. JENNER,
WATCH-KEYS AND CORK-SCREWS.



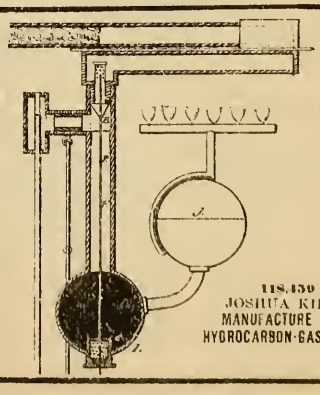
118,457 WILLIAM R. JONES,
STEAM-BOILERS.



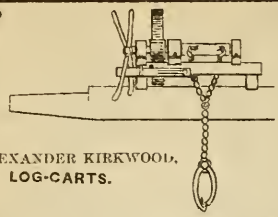
118,458 HENRY JORDAN,
CONSTRUCTION OF SHIPS.



118,459
JOSHUA KIDD
MANUFACTURE OF
HYDROCARBON-GASES.

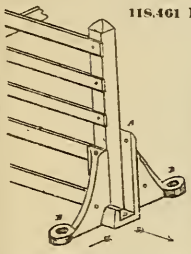


118,460



ALEXANDER KIRKWOOD,
LOG-CARTS.

118,461 HENRY H. LANDIS
FENCES.



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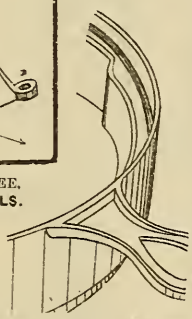
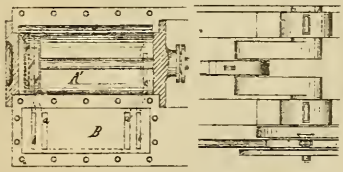
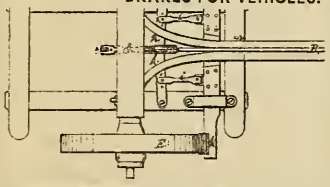
CULINARY VESSELS.



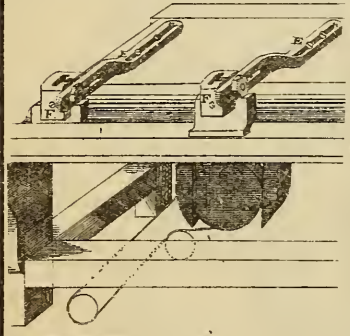
118,463 CHARLES LEVEY, STEAM-ENGINE



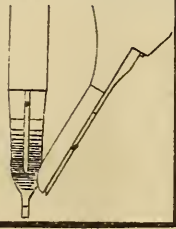
118,465 GEORGE W. LOOMIS,
BRAKES FOR VEHICLES.



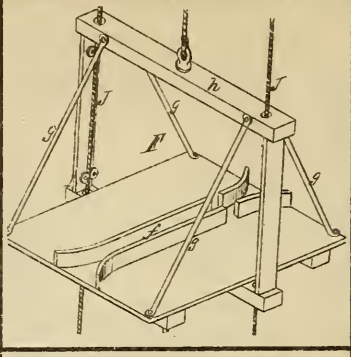
118,466 JOHN S. LOOMIS,
SMOOTHING MOLDING



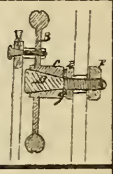
118,467
JOSEPH A. LORD,
THREAD-CUTTERS



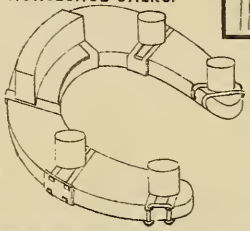
118,468 JOHN MACOMB, ELEVATORS.



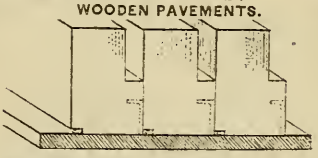
118,469 ROBERT H. McCANN,
DRIVING-WHEELS FOR
SEWING-MACHINES.



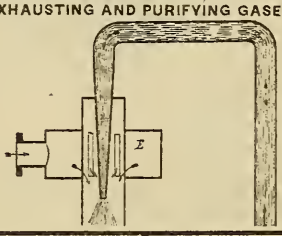
118,470
JOHN J. MERVESP.
HORSESHOE-CALKS.



118,471 DAVID H. MULFORD,
WOODEN PAVEMENTS.

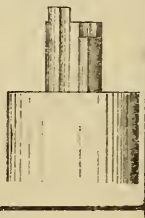


118,472 PETER MUNZINGER,
EXHAUSTING AND PURIFYING GASES.

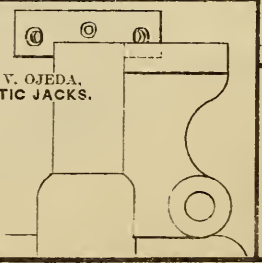


118,473
HERMON NELSEN,
PADLOCKS.

118,474
JOSEPH OCHSNER,
SHAFT-COUPLING

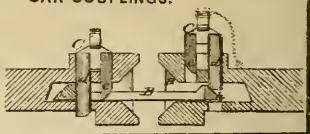


118,475

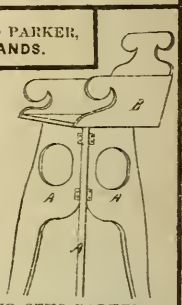


ANTHONY V. OJEDA,
AEROSTATIC JACKS.

118,476 JAMES H. OLIVER,
CAR-COUPLINGS.

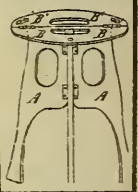


118,478 DAVID OTHO PARKER,
FOLDING WASH-STANDS.

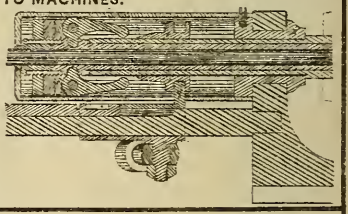


118,479 DAVID OTHO PARKER,
HIGH CHAIRS AND WORK-STANDS COMBINED.

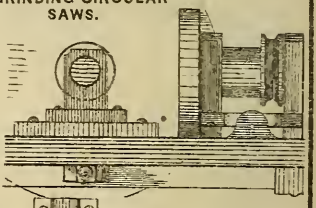
118,480
DAVID OTHO PARKER,
EXCURSION-CHAIRS.

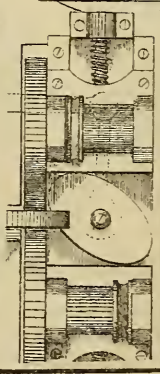


118,481
EDWARD G. PARKHURST,
FEEDING WIRE
TO MACHINES.



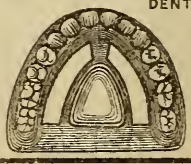
118,482 JOHN PEDDER AND GEORGE ABEL
GRINDING CIRCULAR
SAWS.



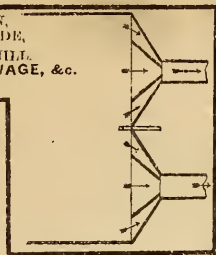


118,483
WILLIAM POMEROY
HERNIAL PADS.

118,484 PURVINE AND SMITH,
DENTAL PLATES.

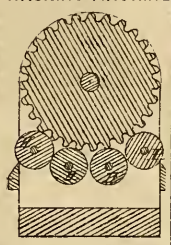


118,485 RAWSON, OVENDEN, WYLDE, McCREE, AND HILL, PURIFYING SEWAGE, &c.

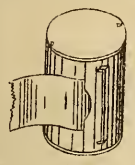


118,486 JAMES C. REED, BOUQUET-HOLDERS.

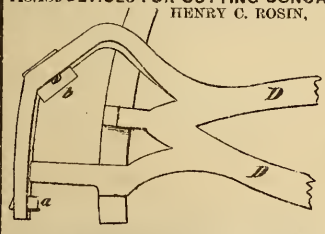
118,487 JOHN W. RICKER, WASHING-MACHINE



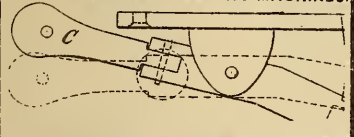
118,488 JOHN G. ROGERS, STAMP-HOLDERS.



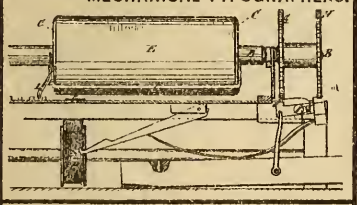
118,489 DEVICES FOR CUTTING CONCAVE HENRY C. ROSIN,



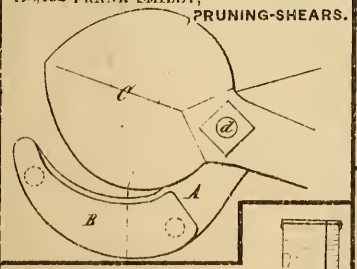
118,490 JAMES BILLINGS SAFFORD, STOPS FOR SEWING-MACHINES.



118,491 C. LATHAM SHOLES, MECHANICAL TYPOGRAPHERS.

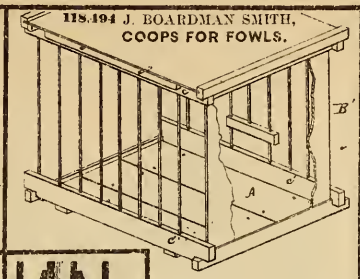


118,492 FRANK SMILEY, PRUNING-SHEARS.



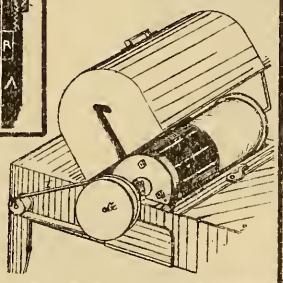
118,493 GAD SMITH, BROOM-HEADS.

118,494 J. BOARDMAN SMITH, COOPS FOR FOWLS.

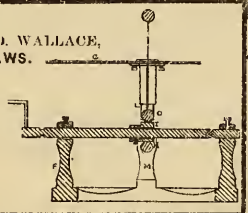


118,496 JOHN SPARKS, PETROLEUM-PUMPS.

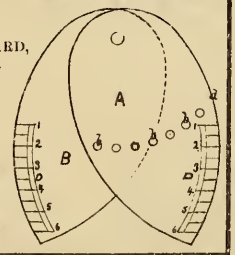
118,497 NELSON S. THOMPSON, COFFEE-ROASTERS.



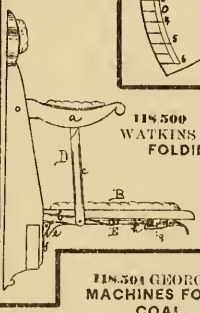
118,498 BENJAMIN D. WALLACE, SCROLL-SAWS.



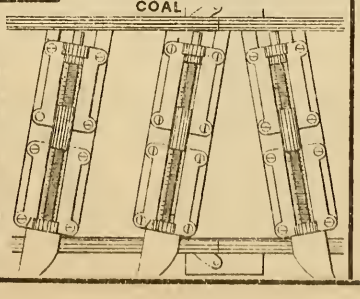
118,499 SYLVANUS WARD, HEEL GAUGES.



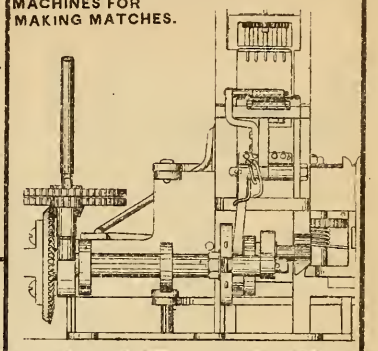
118,500 WATKINS AND McCONNELL, FOLDING CHAIRS.



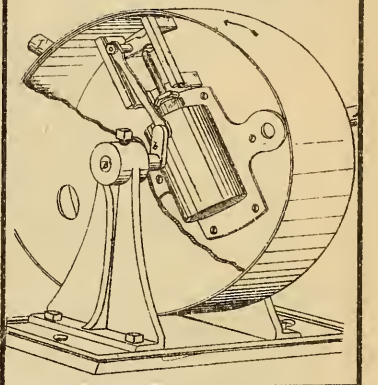
118,501 GEORGE D. WHITCOMB, MACHINES FOR UNDERMINING COAL.



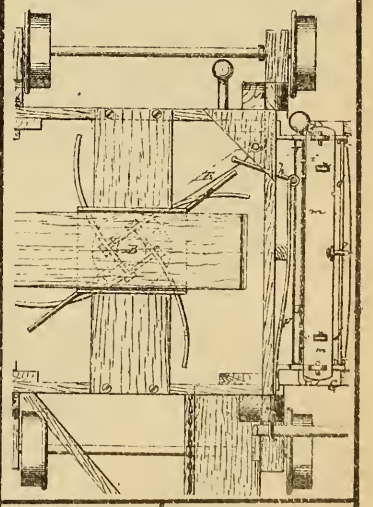
118,502 McCLINTOCK YOUNG, MACHINES FOR MAKING MATCHES.



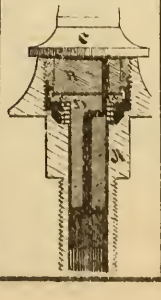
118,503 ALLONAS AND BAUMAN REVOLVING-CYLINDER ENGINES.



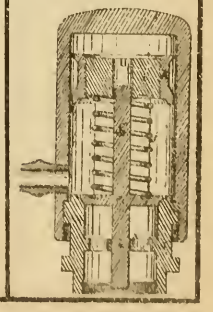
118,504 FRANK ALSIP BRICK-MACHINES.



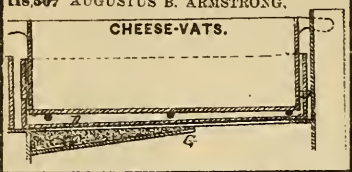
118,505 OAKLEY N. AMES, COMPRESSION COCKS.



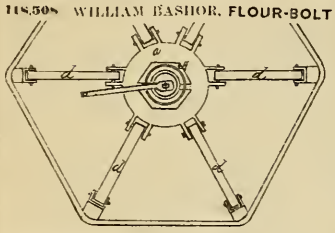
118,506 JAMES ANDERSON, PRESSURE-GAUGES



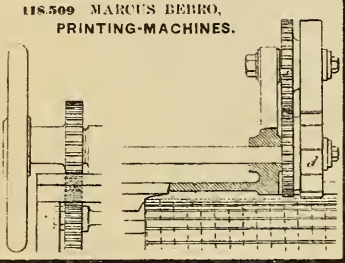
118,507 AUGUSTUS B. ARMSTRONG,
CHEESE-VATS.



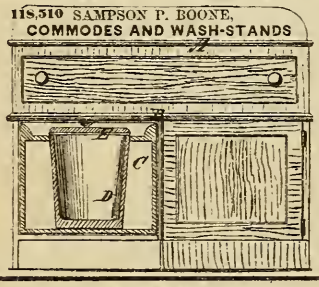
118,508 WILLIAM BASHOR, FLOUR-BOLT



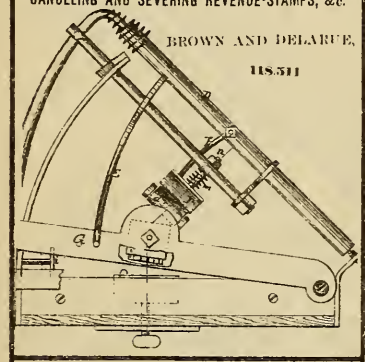
118,509 MARCUS BERRO,
PRINTING-MACHINES.



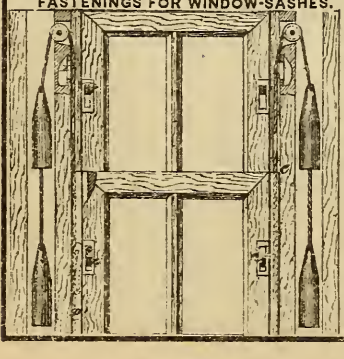
118,510 SAMPSON P. BOONE,
COMMODES AND WASH-STANDS



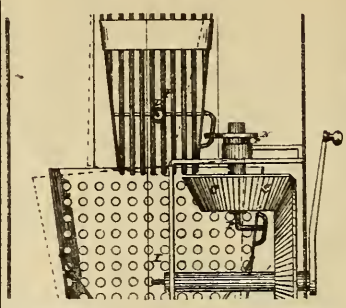
CANCELING AND SEVERING REVENUE-STAMPS, &c.
BROWN AND DELARUE,
118,511

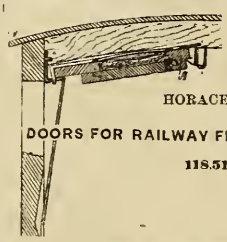


118,512 JACOB K. BUTLER,
FASTENINGS FOR WINDOW-SASHES.



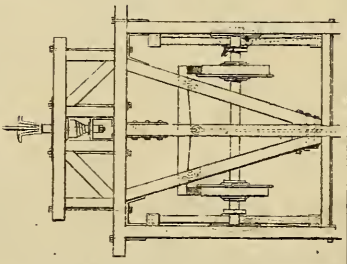
118,513 EDMUND G. CADY.
COAL AND ASH-SIFTERS.



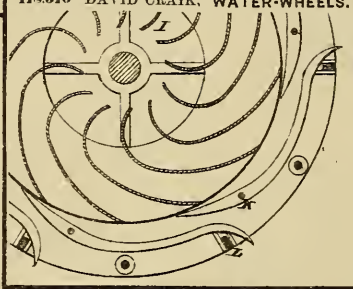


HORACE L. CLARK,
DOORS FOR RAILWAY FREIGHT-CARS.
118,514

118,515 JOHN CLARK,
RAILWAY-CAR TRUCKS.

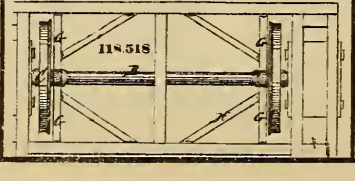


118,516 DAVID CRAIK, WATER-WHEELS.

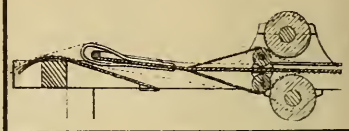


118,517
SAMUEL CREIGHTON.
INSECT-DESTROYERS.

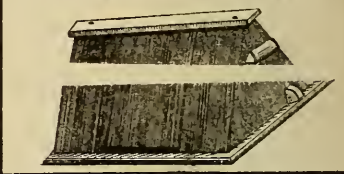
DELLINGER AND HUNT, CAR-TRUCKS.
118,518



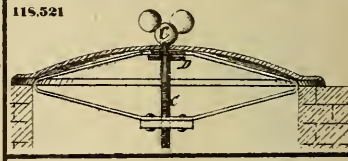
118,519 WHITLEY DENTON,
WRINGING-MACHINES.



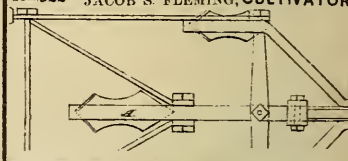
118,520
EUGENE W. DIEFENDORF, BEE-HIVE



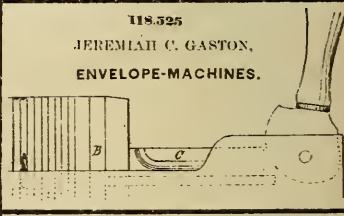
CHARLES H. EARLE, CHIMNEY-STOP
118,521



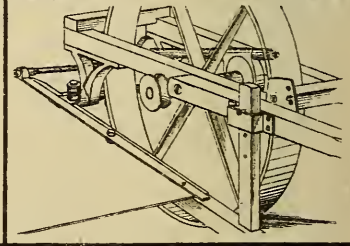
118,522 JACOB S. FLEMING, CULTIVATOR



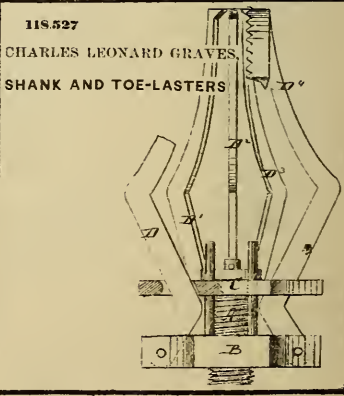
118,525
JEREMIAH C. GASTON,
ENVELOPE-MACHINES.



118,526 WILLIAM F. GOODWIN HARVESTER

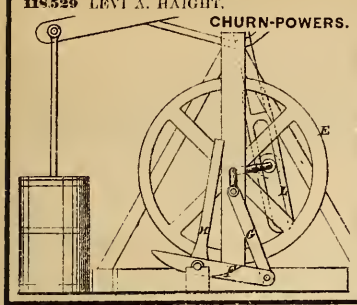


118,527
CHARLES LEONARD GRAVES,
SHANK AND TOE-LASTERS

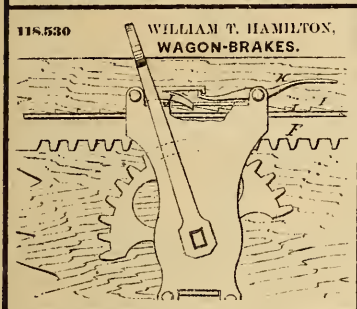


118,528
JAMES F. GYLES,
WOOD PAVEMENT

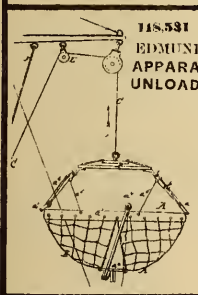
118,529 LEVI A. HAIGHT.
CHURN-POWERS.



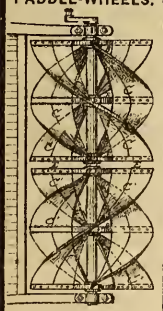
118,530 WILLIAM T. HAMILTON,
WAGON-BRAKES.



118,531 EDMUND HARRISON,
APPARATUS FOR UNLOADING HAY,

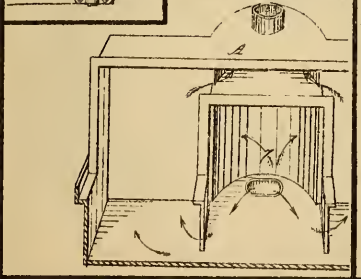


118,532 JOSEPH C. HITE,
PADDLE-WHEELS.

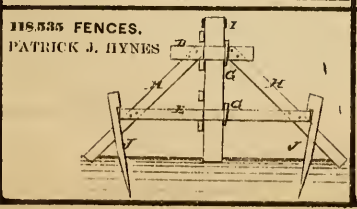


118,533 WILLIAM H. HOCKENSMITH,
DIAPER-PINS.

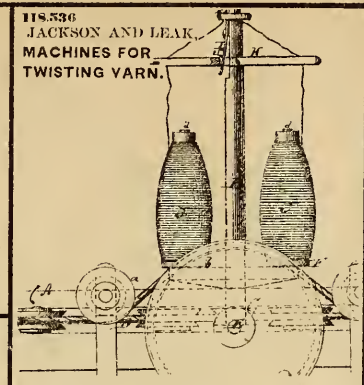
118,534 GEORGE E. HOPKIN
COOKING-STOVES



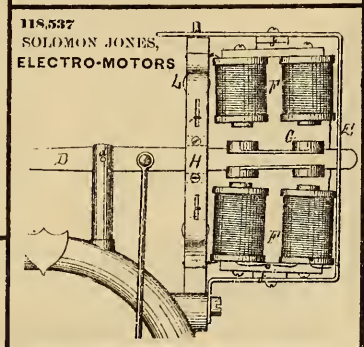
118,535 FENCES.
PATRICK J. HYNES



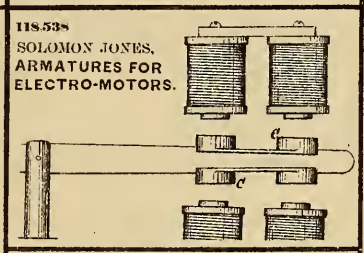
118,536 JACKSON AND LEAK,
MACHINES FOR TWISTING YARN.



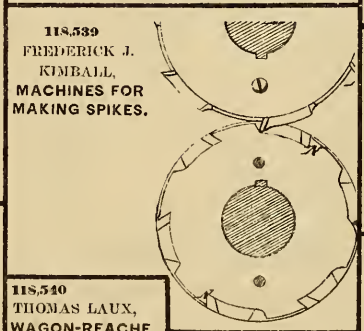
118,537 SOLOMON JONES,
ELECTRO-MOTORS



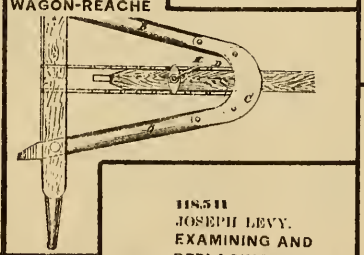
118,538 SOLOMON JONES,
ARMATURES FOR ELECTRO-MOTORS.



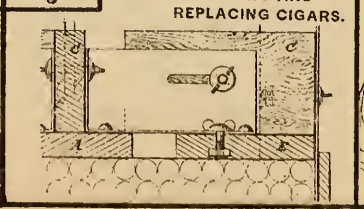
118,539 FREDERICK J. KIMBALL,
MACHINES FOR MAKING SPIKES.



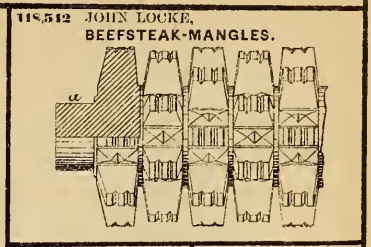
118,540 THOMAS LAUX,
WAGON-REACHE



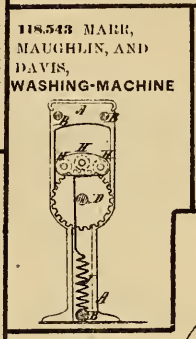
118,541 JOSEPH LEVY.
EXAMINING AND REPLACING CIGARS.



118,542 JOHN LOCKE,
BEEFSTEAK-MANGLES.

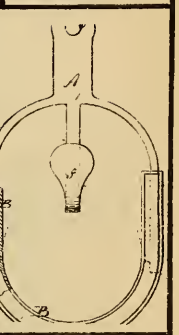


118,543 MARR, MAUGHLIN, AND DAVIS,
WASHING-MACHINE

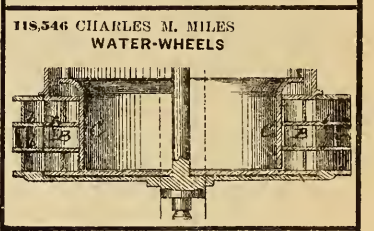


118,544 THOMAS MARSH,
HOLDERS FOR SPINNING-RINGS

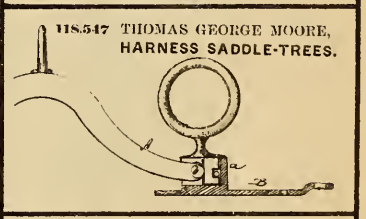
118,545 MARVIN AND HULSE,
BUNG-SPOUTS.



118,546 CHARLES M. MILES
WATER-WHEELS

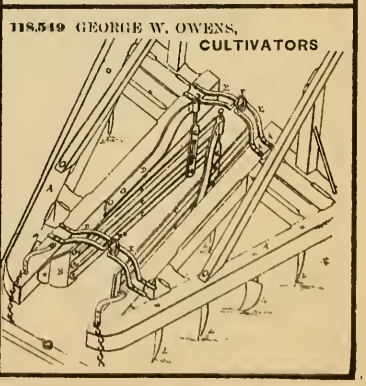


118,547 THOMAS GEORGE MOORE,
HARNESS SADDLE-TREES.

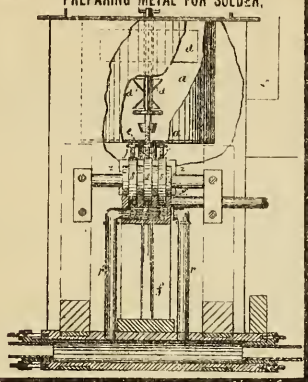


JAMES L. OLIVER,
WASTE-PIPES FOR SINKS.
118,548

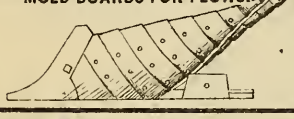
118,549 GEORGE W. OWENS,
CULTIVATORS



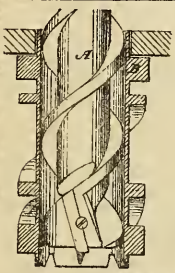
118,550 REUBEN PAINTER, PREPARING METAL FOR SOLDER.



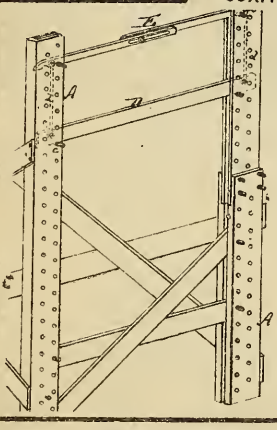
118,551 GEORGE PEACOCK, MOLD-BOARDS FOR PLOWS.



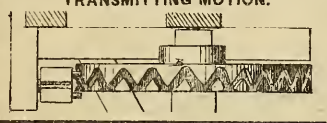
118,552 HIRAM PITCHER, AUGERS.



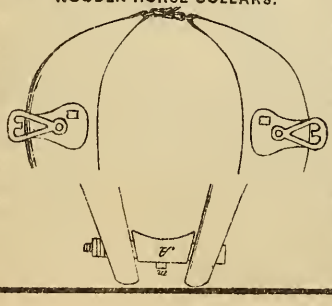
118,553 JOHN REDICK, SCAFFOLDS.



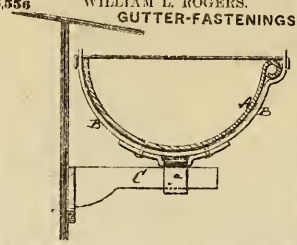
118,554 SAMUEL S. REMBERT, TRANSMITTING MOTION.



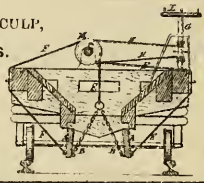
118,555 ZENAS C. ROBBINS, WOODEN HORSE-COLLARS.



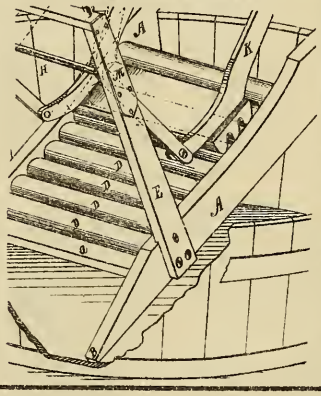
118,556 WILLIAM L. ROGERS, GUTTER-FASTENINGS.



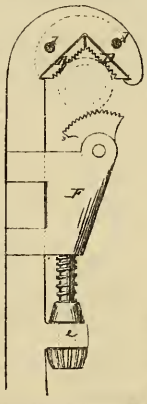
SOLOMON ROUSCULP, DUMPING-CARS. 118,557



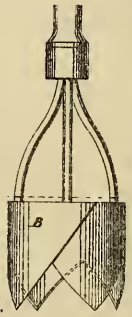
118,558 JOHN SCHERMERHORN, WASHING-MACHINES.



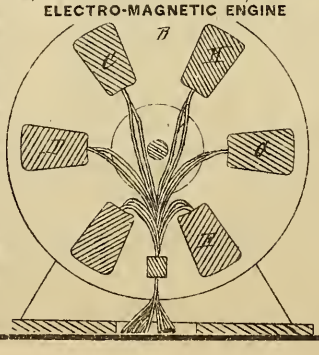
118,559 HIRAM N. SMADE, WRENCHES.



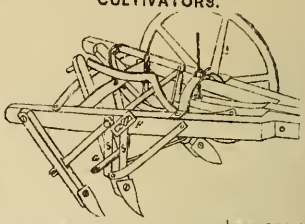
118,560 EDWARD R. SUMNER, POST-HOLE DIGGERS.



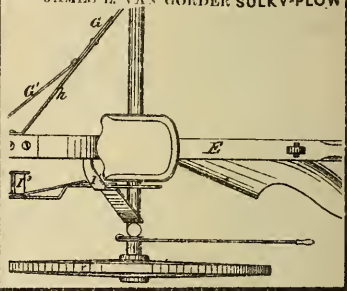
118,561 JACOB P. TIRREL, ELECTRO-MAGNETIC ENGINE



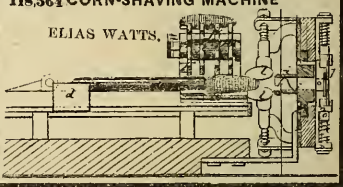
118,562 ARNOLD TOMPKINS, CULTIVATORS.



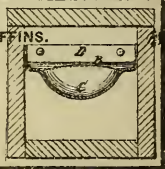
118,563 JAMES L. VAN GORDER SULKY-PLOW



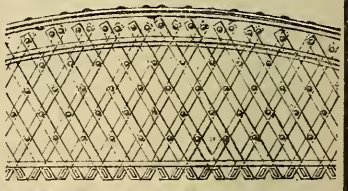
118,564 CORN-SHAVING MACHINE ELIAS WATTS.



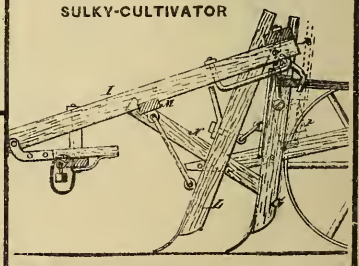
JOHN P. WAUGH, HEAD-RESTS FOR COFFINS. 118,565



118,566 PETER L. WEIMER, ARCHED TRUSSES FOR BRIDGES.

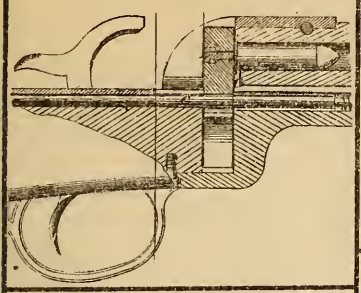


118,567 NICHOLAS WHITEHALL SULKY-CULTIVATOR

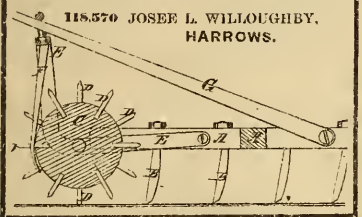


118,568 PETER S. WHITMAN, OVERSHOES.

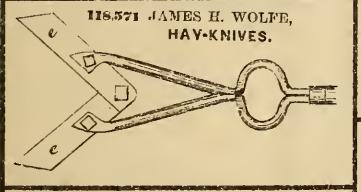
118,569 JOHN D. WILKINSON, BREECH-LOADING FIRE-ARMS.



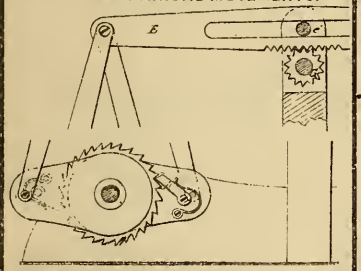
118,570 JOSEE L. WILLOUGHBY, HARROWS.



118,571 JAMES H. WOLFE, HAY-KNIVES.

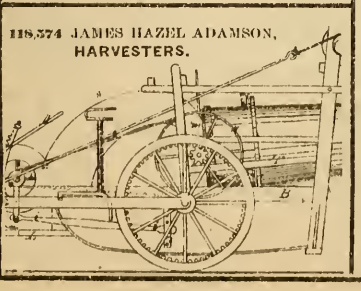


118,572 EDWARD E. YOUNG, MECHANICAL MOVEMENTS.

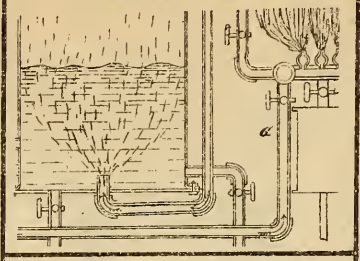


118,573 QUINTEN M. YOUNGS, BLIND-SLAT OPERATORS.

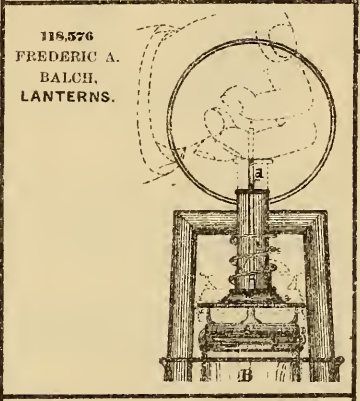
118,574 JAMES HAZEL ADAMSON, HARVESTERS.



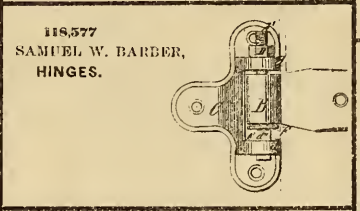
118,575 AUGUSTIN I. AMBLER, GENERATING GASES FROM PETROLEUM,



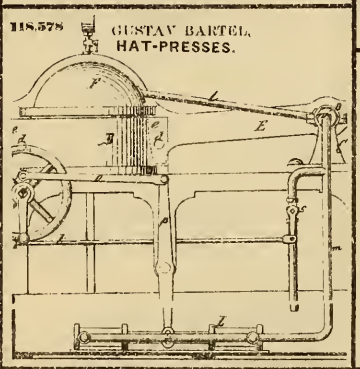
118,576 FREDERIC A. BALCH, LANTERNS.



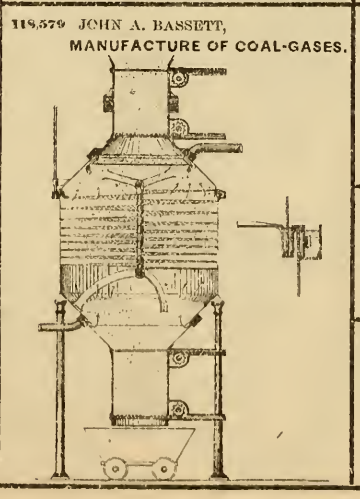
118,577 SAMUEL W. BARBER, HINGES.



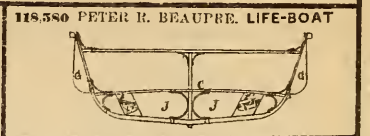
118,578 GUSTAV BARTEL, HAT-PRESSES.



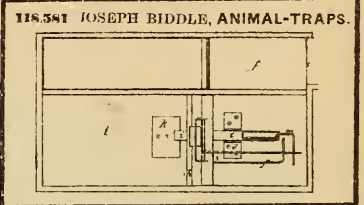
118,579 JOHN A. BASSETT, MANUFACTURE OF COAL-GASES.



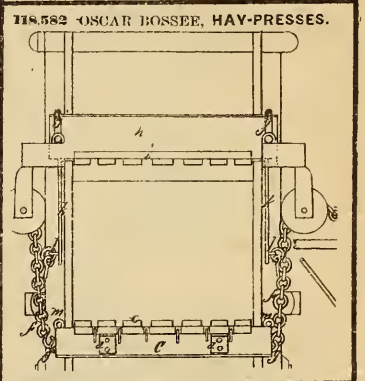
118,580 PETER R. BEAUPRE. LIFE-BOAT



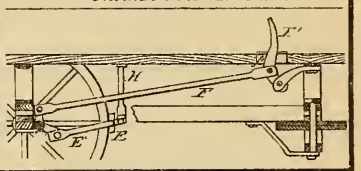
118,581 JOSEPH BIDDLE, ANIMAL-TRAPS.



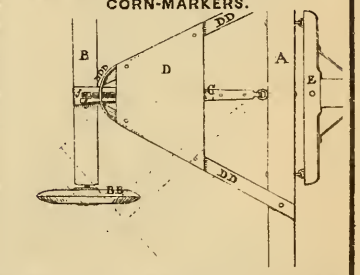
118,582 OSCAR BOSSEE, HAY-PRESSES.



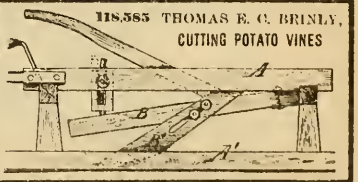
118,583 JOHN BOYER, BRAKES FOR VEHICLES.



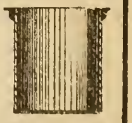
118,584 AUSTIN G. BRASSFIELD CORN-MARKERS.



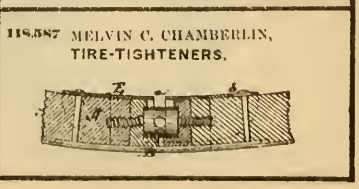
118,585 THOMAS E. C. BRINLY, CUTTING POTATO VINES



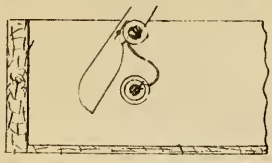
118,586 HENRY CALLAHAN, FRUIT-CANS.



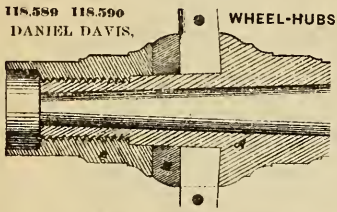
118,587 MELVIN C. CHAMBERLIN, TIRE-TIGHTENERS.



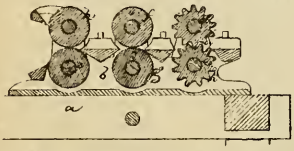
118,588 DAVIS AND THEODORE PARSONS, HOLDING UP THE LIDS OF BOXES.



118,589 118,590 DANIEL DAVIS, WHEEL-HUBS

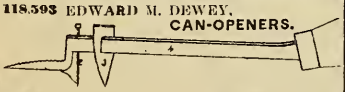


118,591 CHARLES A. DEAN, FIBER-CLEANING MACHINES.

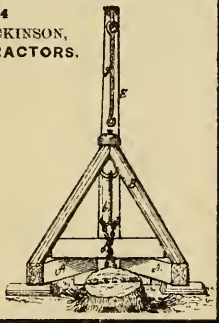


118,592 WILLIAM H. DE VALIN. PAVEMENTS

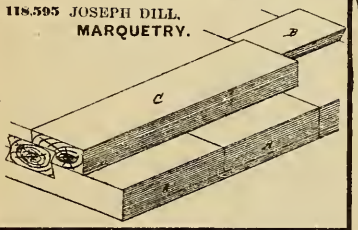
118,593 EDWARD M. DEWEY, CAN-OPENERS.



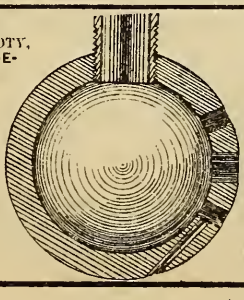
118,594 ALFRED DICKINSON, STUMP-EXTRACTORS.



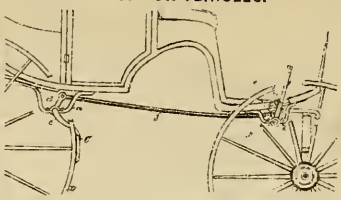
118,595 JOSEPH DILL, MARQUETRY.



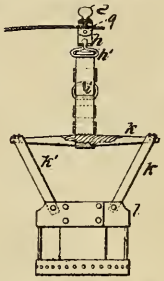
118,596 WILLIAM DOTY, STEAM FLUE-CLEANERS.



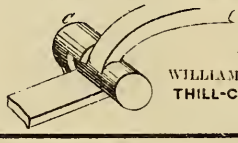
118,598 FRANKLIN FAIRBANKS, BRAKES FOR VEHICLES.



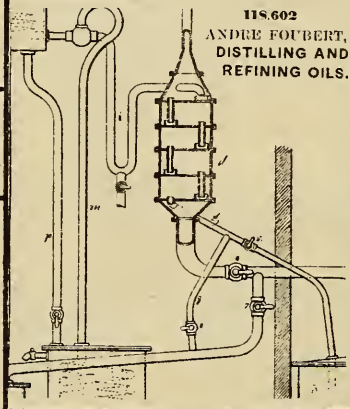
118,599 JOHN P. FAULKS, BABY-JUMPERS.



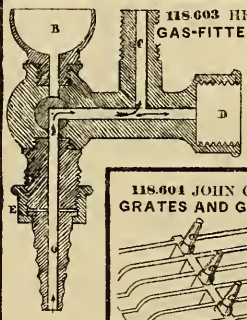
118,600 WILLIAM G. FOSTER. THILL-COUPLINGS.



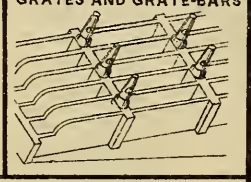
118,602 ANDRE FOUBERT, DISTILLING AND REFINING OILS.



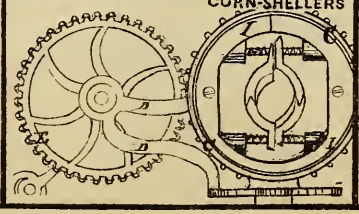
118,603 HENRY GETTY GAS-FITTERS' GAUGES



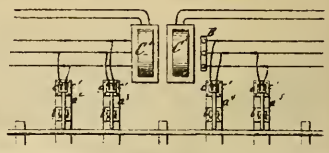
118,604 JOHN C. GRANT, GRATES AND GRATE-BARS



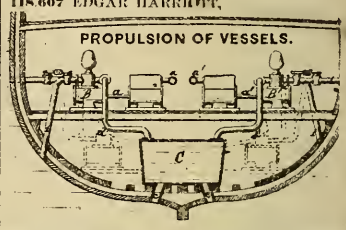
118,605 DAVID C. GUTTRIDGE CORN-SHELLERS



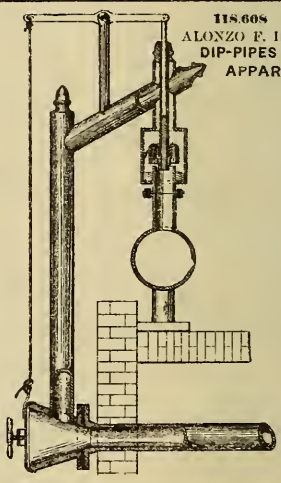
118,606 THOMAS S. HALL. ELECTRO-MAGNETIC SIGNAL APPARATUS



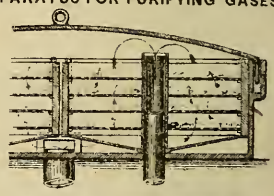
118,607 EDGAR HARRIOTT, PROPULSION OF VESSELS.



118,608 ALONZO F. HAVENS. DIP-PIPES IN GAS APPARATUS.



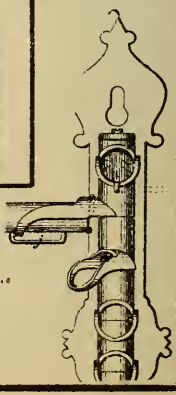
118,609 ALONZO F. HAVENS, APPARATUS FOR PURIFYING GASES.



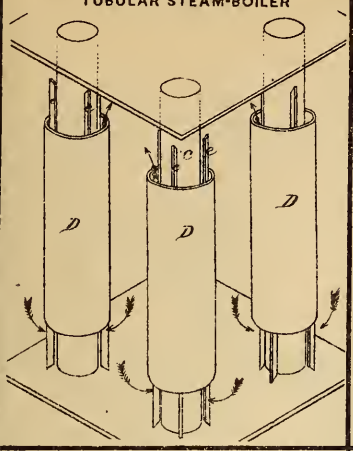
118,611 HEBERLING, AND FIESTER, SNAP-HOOKS.

118,610 HAYS AND PANCAKE. GIRTS.

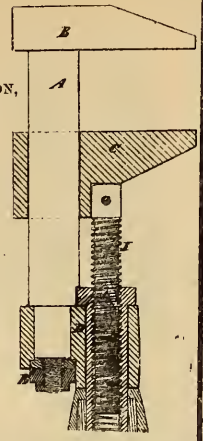
118,612 A. HARLEIGH HILL. CLOTHES-DRIERS.



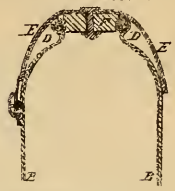
118,613 OLIVER HYDE,
TUBULAR STEAM-BOILER



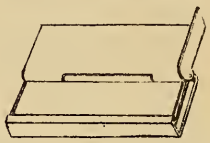
118,619
JAMES W. MAHLON,
WRENCH



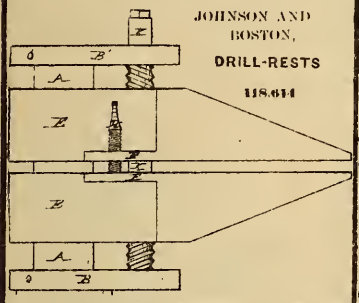
118,626 EDWARD ANNIS MERRILL.
PACKING-BAGS.



118,627 L. OTTO P. MEYER, MATCH-BOX

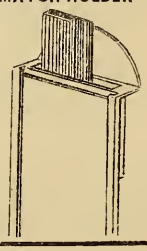


JOHNSON AND BOSTON,
DRILL-RESTS
118,614

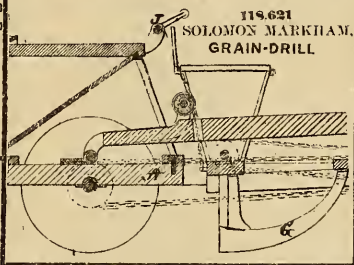


118,620 CHARLES MALHOIT,
SHOULDER-TOOLS FOR SHOEMAKERS.

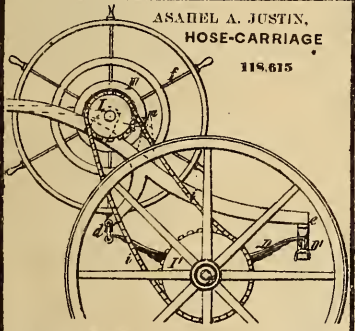
118,628 L. OTTO P. MEYER,
MATCH-HOLDER



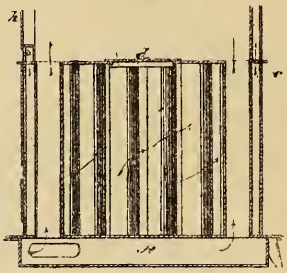
118,621
SOLOMON MARKHAM,
GRAIN-DRILL



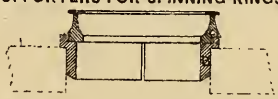
ASAHEL A. JUSTIN,
HOSE-CARRIAGE
118,615



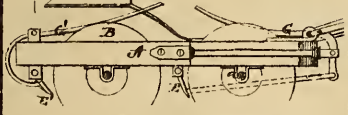
118,629 HIRAM C. MILES,
HEATING-STOVE



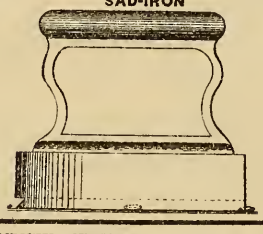
118,622 THOMAS MARSH,
SUPPORTERS FOR SPINNING-RINGS.



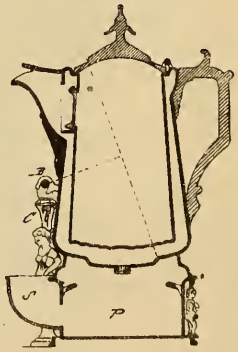
118,616 JAMES M. KELLY, FIELD-ROLLER

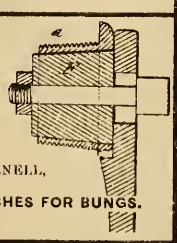


118,623 MANCY AND LEWIS,
SAD-IRON



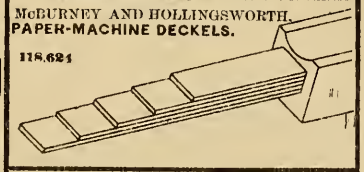
118,630 FRIEND MILLER,
ICE-PITCHER



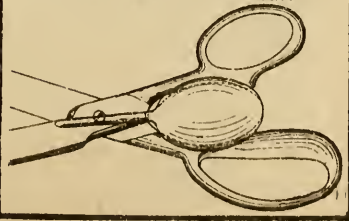


118,617
LACEY AND CORNELL,
BUSHES AND WRENCHES FOR BUNGS.

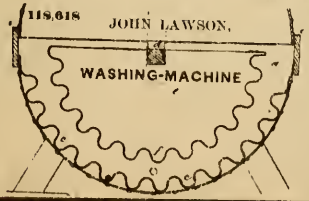
McBURNEY AND HOLLINGSWORTH,
PAPER-MACHINE DECKELS.
118,624



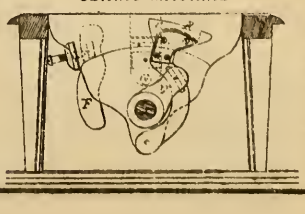
118,625 WILLIAM C. McINTIRE,
ATTACHMENTS FOR SHEARS.



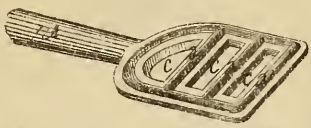
118,618 JOHN LAWSON,
WASHING-MACHINE



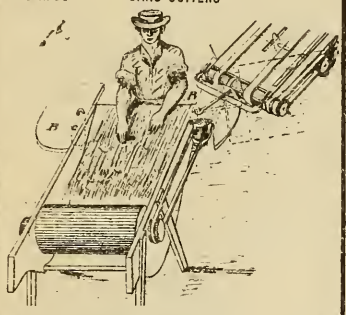
118,631 ADAM MOLTZ,
SEWING-MACHINE



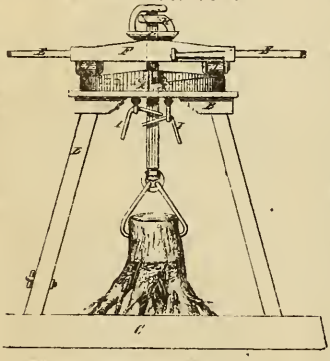
118,632 FRANCIS B. MORSE,
CARRIAGE-STEPS.



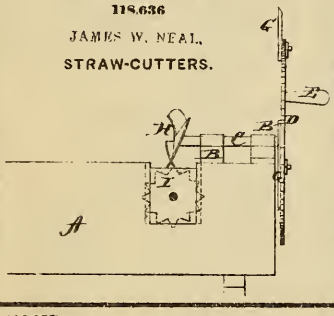
SAMUEL C. MYERS AND JAMES McCAULEY
118,634 BAND-CUTTERS



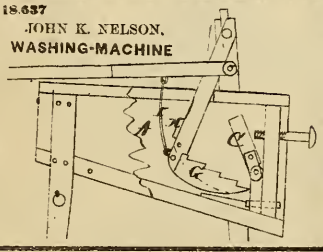
118,635 FRANCIS M. NASH,
STUMP-EXTRACTORS.



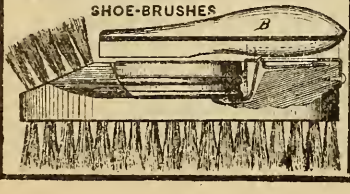
118,636
JAMES W. NEAL,
STRAW-CUTTERS.



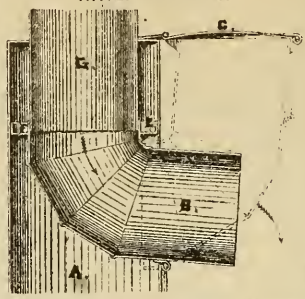
118,637
JOHN K. NELSON,
WASHING-MACHINE



118,638 GEORGE R. OWEN,
SHOE-BRUSHES

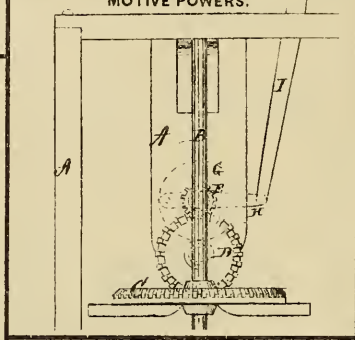


118,639 WILLIAM PHIPPS,
WATER CUT-OFFS.



118,640 CLARK M. PLATT, EYELETS

118,641 THOMAS J. POLSON,
MOTIVE POWERS.



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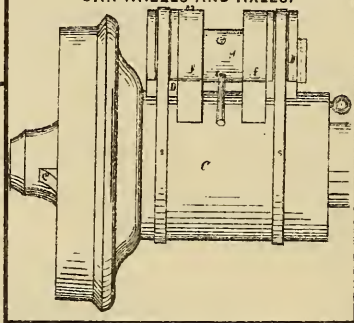
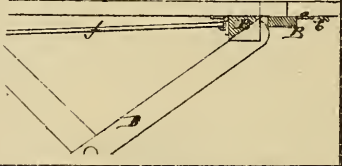
CAR-WHEELS AND AXLES.



118,643 THOMAS REED, IRONING-TABLE



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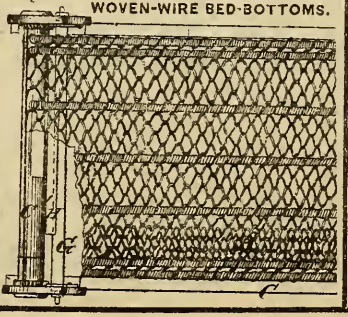
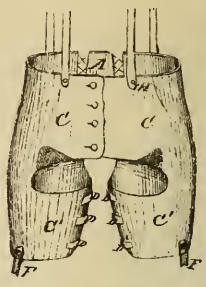
WOVEN-WIRE BED-BOTTOMS.



118,645 JEANNIE V. RICHARDSON,
ABDOMINAL SUPPORTERS.



118,646 CHARLES L. RIDGWAY,
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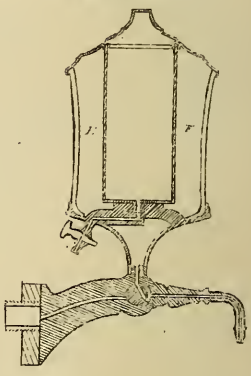
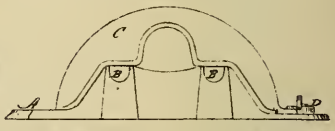


118,647 JOSEPH B. SARGENT,
JOURNAL-BOXES.



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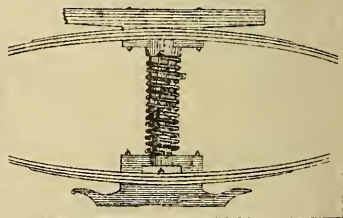
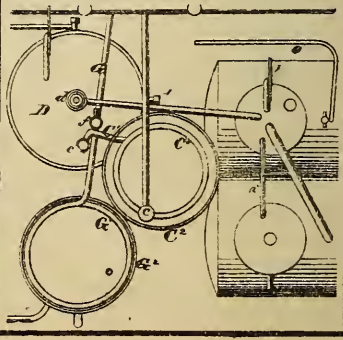
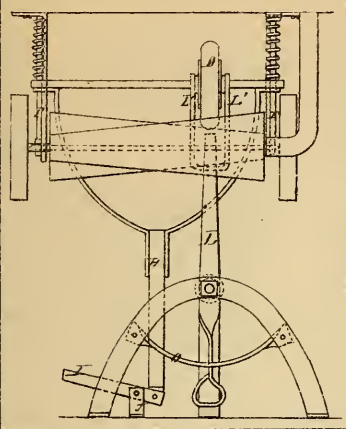
CHRISTIAN SCHERICH,
CHECK-SPRINGS



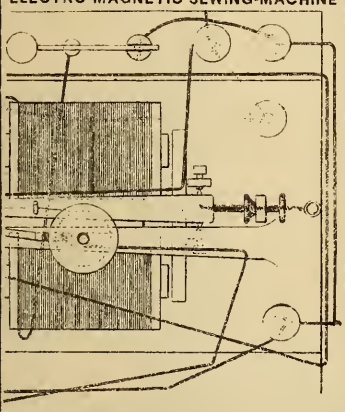
118,649 JAMES E. SEARS,
MANUFACTURE OF ICE.



118,650 DAVID H. SHERMAN,
MOTORS FOR SEWING-MACHINES.



118,651 DAVID M. SMYTH,
ELECTRO-MAGNETIC SEWING-MACHINE



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DAVID M. SMYTH.
ELECTRO-MAGNETIC
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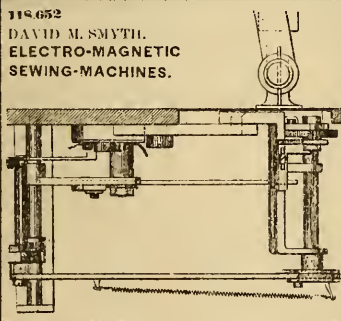

118,653 WILLIAM H. TALLMAN,
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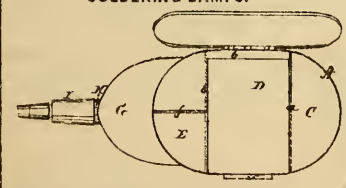
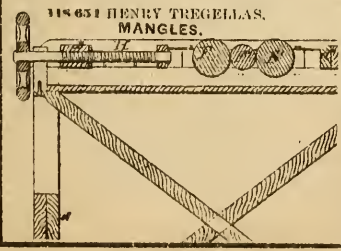
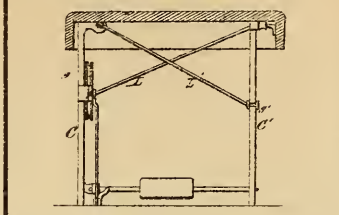


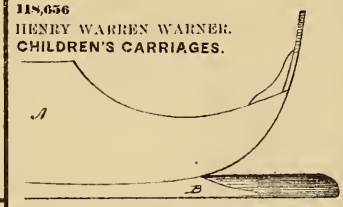
118,654 HENRY TREGELLAS,
MANGLES.



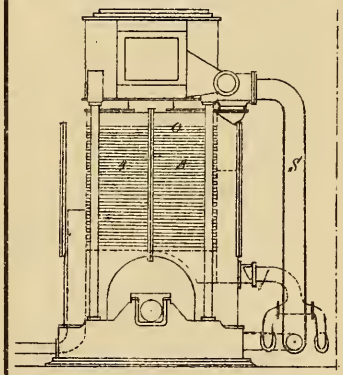
118,655 AUSBERT H. WAGNER,
SEWING-MACHINE TABLES.



118,656
HENRY WARREN WARNER.
CHILDREN'S CARRIAGES.



118,657 WEGSCHAIDER AND BONETTI.
STEAM-ENGINES



118,658 WILLIAM P. WENTWORTH,
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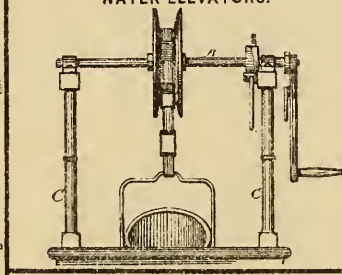
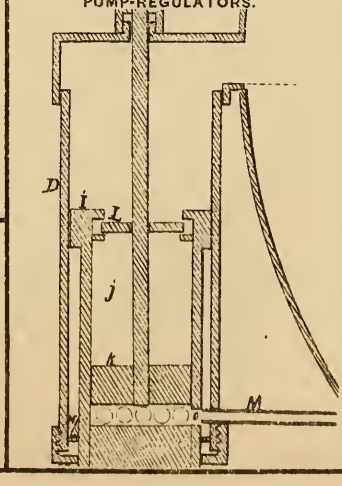


118,659 SHEPHERD H. WHEELER,
PUMP-REGULATORS.



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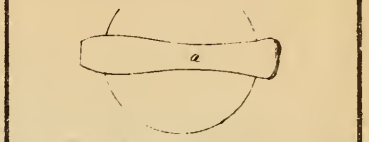
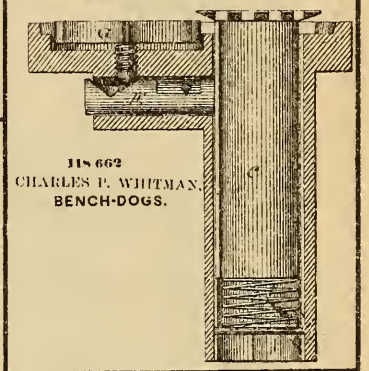
METALLIC SHANKS FOR BOOTS AND SHOES.



118,661 JOHN LAKE WHITING,
BRUSHES.

118,662
CHARLES P. WHITMAN,
BENCH-DOGS.



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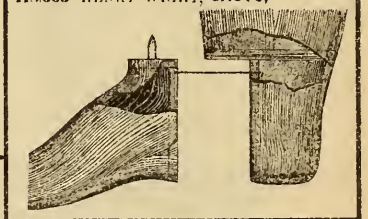
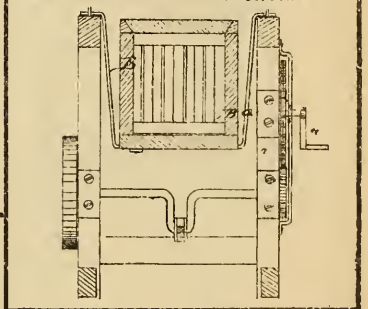


118,664 JAMES M. VEAGER, CHURNS.



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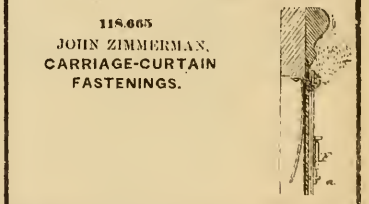
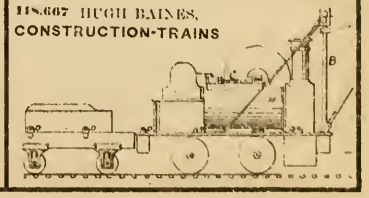
JOHN ZIMMERMAN,
CARRIAGE-CURTAIN
FASTENINGS.

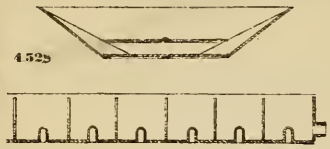


118,667 HUGH BAINES,
CONSTRUCTION-TRAINS



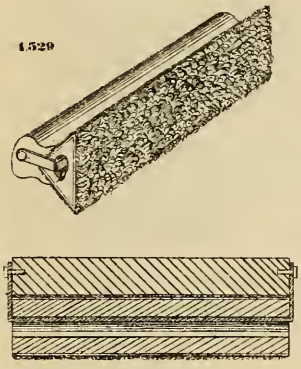
FRANCIS G. BUTLER, EVAPORATING-PANS

4,528



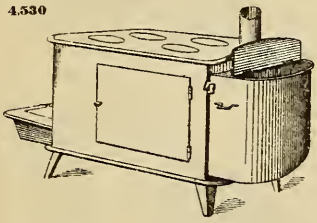
AUGUSTUS CHARLES,
RUBBERS AND BRUSHES.

4,529



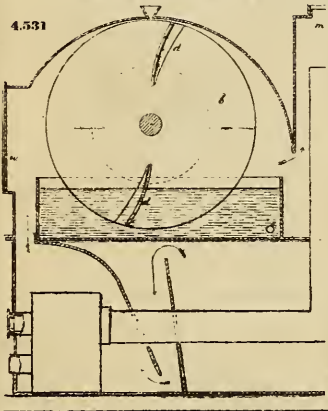
JAMES R. HYDE. COOKING-STOVES.

4,530

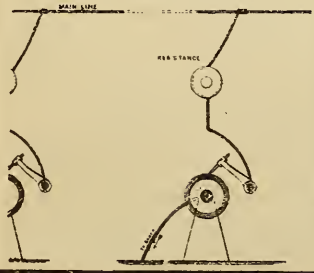


THOMAS W. JOHNSON,
APPARATUS FOR EVAPORATING

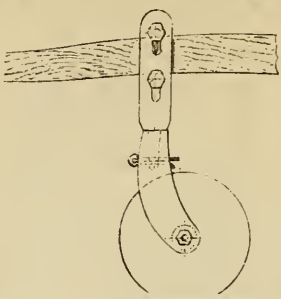
4,531



4,532 GEORGE LITTLE,
TELEGRAPH APPARATUS.

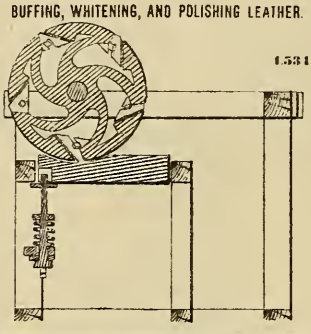


4,533 JOHN CASPER PFEIL. PLOWS.



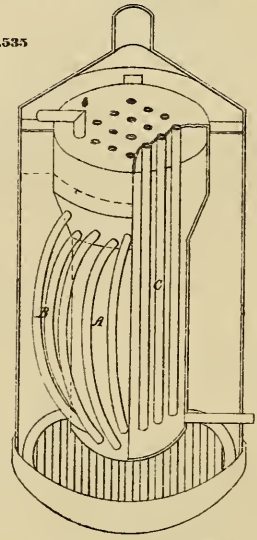
ALBERT W. PRATT,
BUFFING, WHITENING, AND POLISHING LEATHER.

4,534



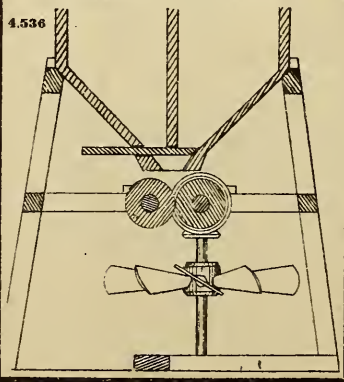
ROGERS AND BLACK,
STEAM-GENERATORS.

4,535



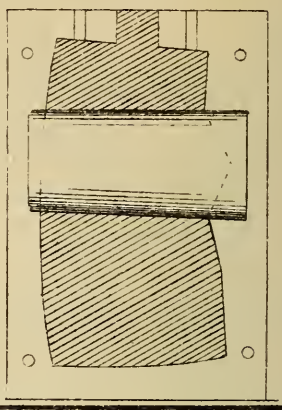
MARTIN L. SENDERLING,
PROCESSES FOR MIXING SUGAR.

4,536



SAMUEL W. COLLINS,
CASTING EDGE AND OTHER TOOLS.

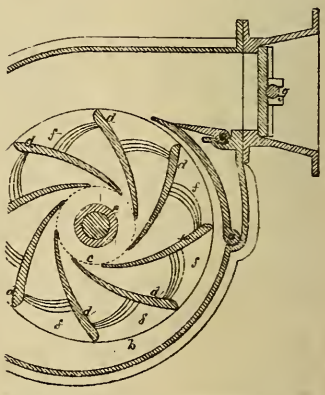
4,537



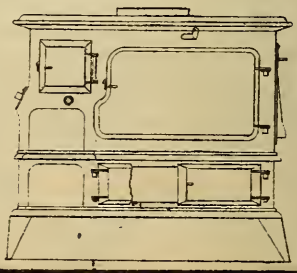
SAMUEL W. COLLINS,
CASTING EDGE AND OTHER TOOLS.

4,538

4,539 JOHN TYLER, WATER-WHEELS.



4,540 GEORGE W. WALKER,
COOKING-STOVES.



ILLUSTRATIONS OF PATENTS

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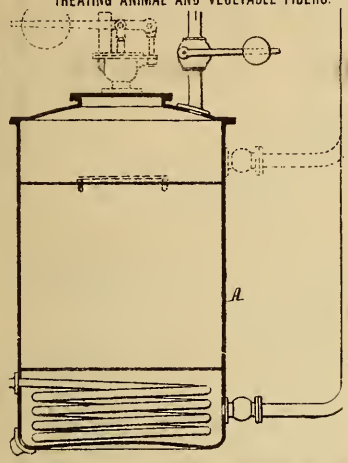
SEPTEMBER 5, 1871.

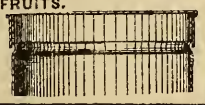
118,668

WILLIAM ADAMSON,
TREATING ANIMAL AND VEGETABLE FIBERS.



118,669 MATTHEW ANDREW.
GAS-ILLUMINATORS.

118,670
H. MARK ANTHONY.
CANS FOR PRESERVING FRUITS.



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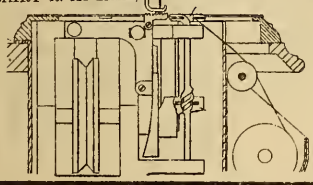
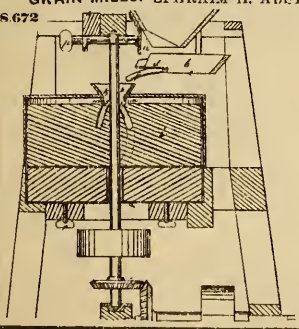
MARY E. ANTRIM, SEWING-MACHINES.



GRAIN-MILLS. EPHRAIM H. AUSTIN,
118,672



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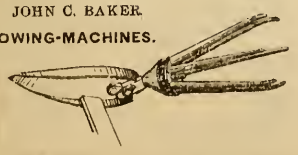
JOHN C. BAKER.
MOWING-MACHINES.



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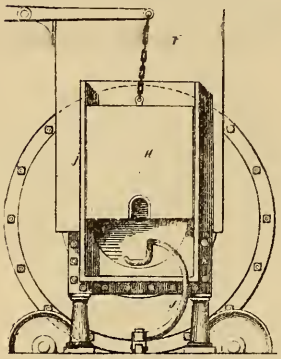
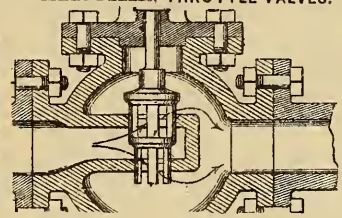
WILLIAM BAYNTON,
ROTARY PUDDLING-FURNACES.

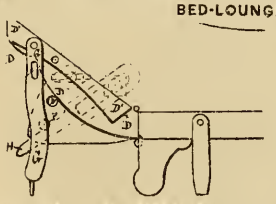


118,675 CICERO BECKHAM,
HANDLES OF POCKET-KNIVES.

118,676
WILLIAM BELLIS, THROTTLE-VALVES.



118,677 ALBERT FREDERICK BENTEN,
BED-LOUNGES.



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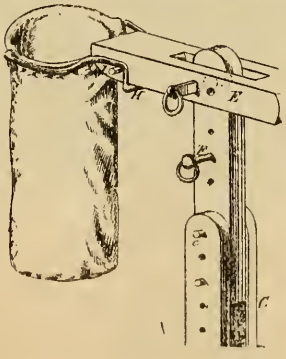
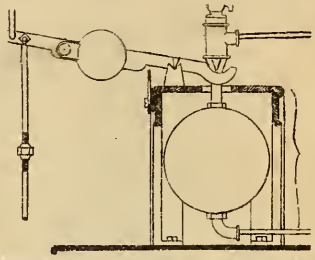
NORBORNE BERKELEY, CARRIAGE-JACKS,



118,679 ROBERT BERRYMAN.
FEED-WATER REGULATORS



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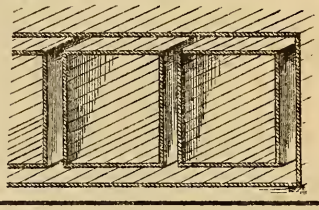
HENRY BISBING, PROTECTING UNSLAKED LIME



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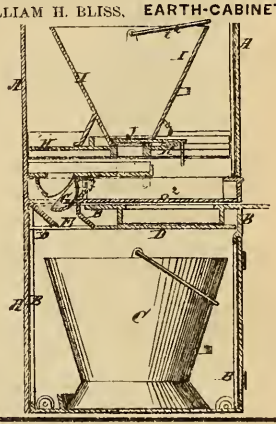
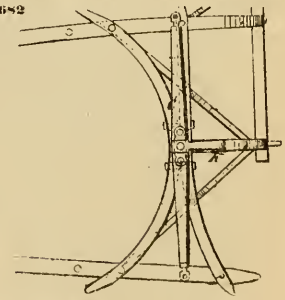
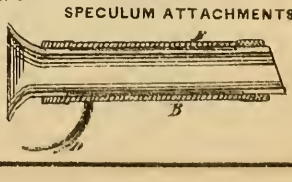
WILLIAM H. BLISS, EARTH-CABINETS.



CHARLES BOCK AND DANIEL BOCK.
SHAFTS FOR SLEIGHS.
118,682

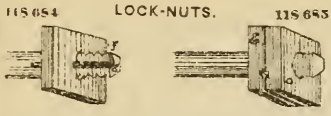


118,683 JEROME D. BRUCE.
SPECULUM ATTACHMENTS.



AARON WHITED BUNNELL.

118,684 LOCK-NUTS. 118,685



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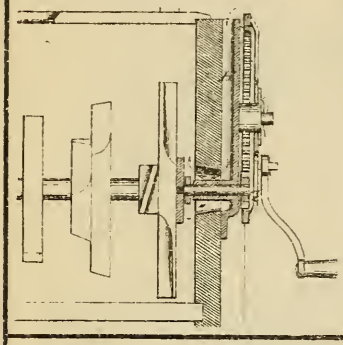
JAMES W. CHAPMAN. CHURNS.



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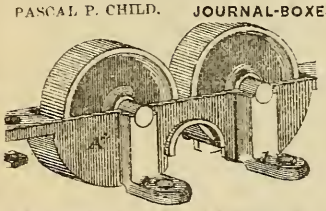
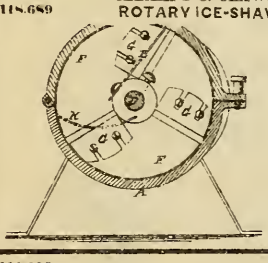
PASCAL P. CHILD. JOURNAL-BOXES



118,689 CLEMANT C. CLAWSON. ROTARY ICE-SHAVERS.



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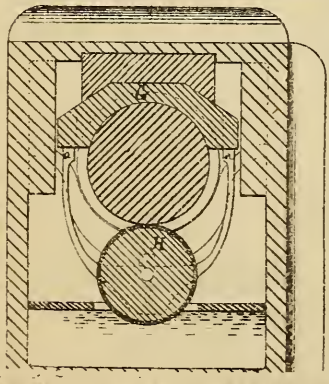
CLEMMER AND CLEMMER PRUNING-SHEARS.

118,691 EDWARD COLLINS. LUBRICATING CAR-AXLE JOURNALS.



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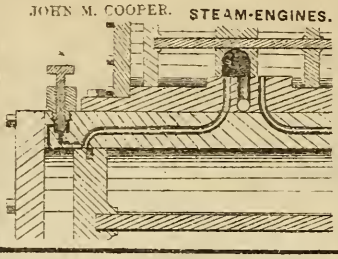
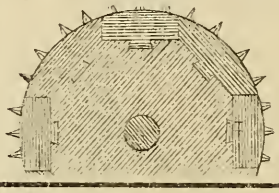
JOHN M. COOPER. STEAM-ENGINES.

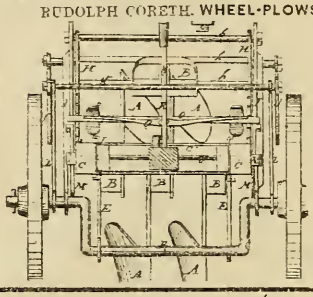


118,693 HARMON W. CORNELL. CASTING TOOTHED CYLINDERS.



118,694

RUDOLPH CORETH. WHEEL-PLOWS.



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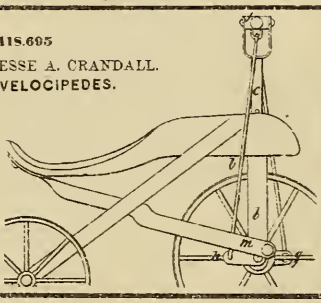
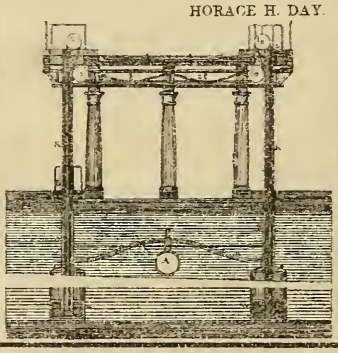
JESSE A. CRANDALL. VELOCIPEDES.

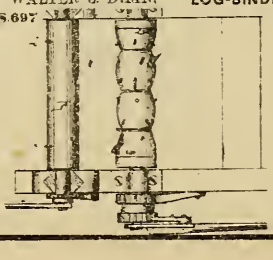


118,696 HYDRAULIC AND PNEUMATIC ELEVATORS HORACE H. DAY.



WALTER L. DEAN. LOG-BINDERS.

118,697

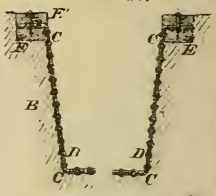


DENTON AND DENTON.

118,698 EXTENSION CLOTHES-POLES.

118,699

WILLIAM H. DOANE. CANALS.



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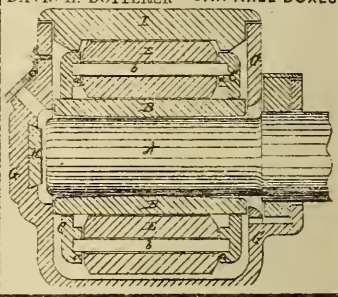
DAVIS H. DOTTERER CAR-AXLE BOXES.



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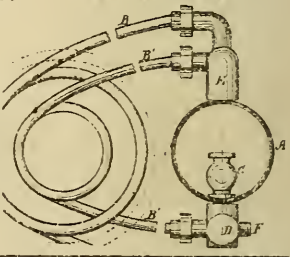
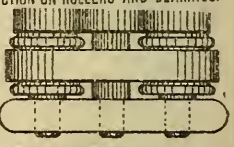
RUS W. DUGAN. STEAM-GENERATORS.



118,703 EDWARD DUMMER. REDUCING FRICTION ON ROLLERS AND BEARINGS.



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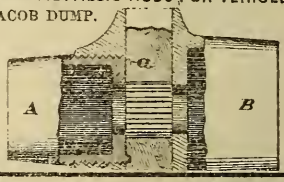
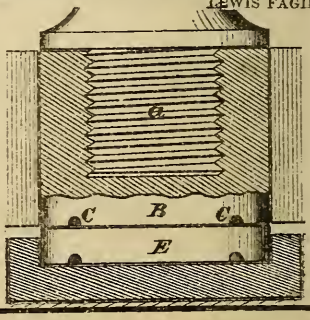
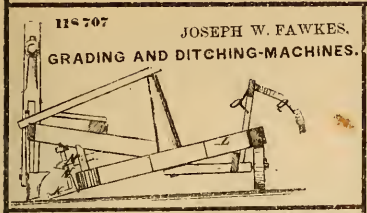


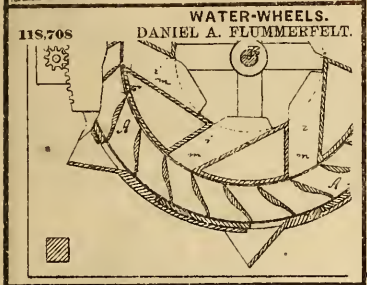
118,705 LUBRICATORS FOR SHAFTINGS. LEWIS FAGIN.



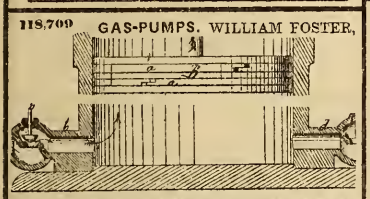
118,707 JOSEPH W. FAWKES. GRADING AND DITCHING-MACHINES.



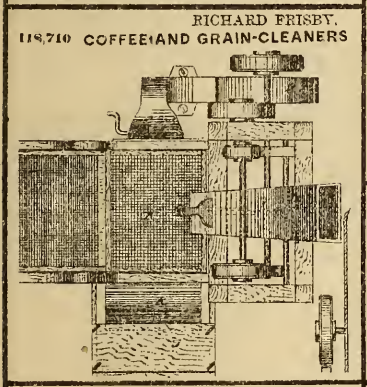
118,708 WATER-WHEELS. DANIEL A. FLUMMERFELT.



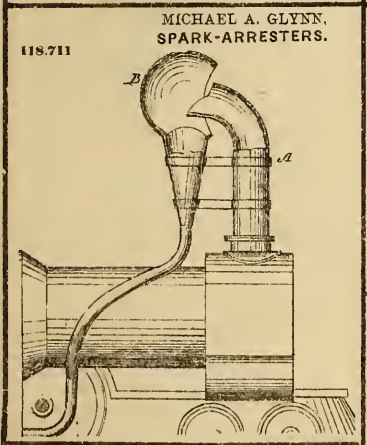
118,709 GAS-PUMPS. WILLIAM FOSTER,



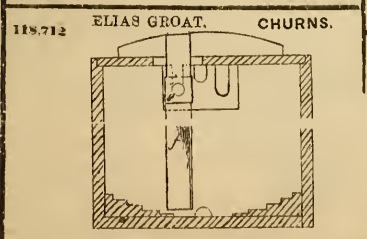
118,710 RICHARD FRISBY, COFFEE AND GRAIN-CLEANERS



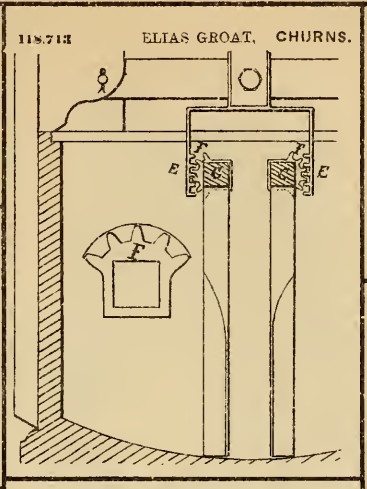
118,711 MICHAEL A. GLYNN, SPARK-ARRESTERS.



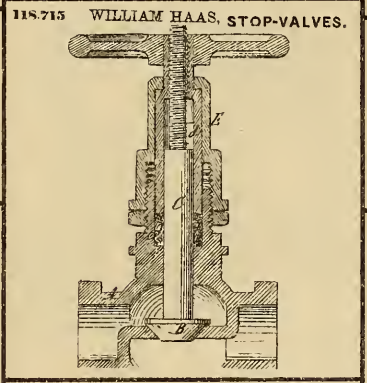
118,712 ELIAS GROAT, CHURNS.



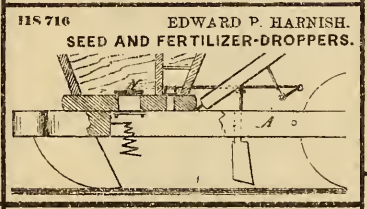
118,713 ELIAS GROAT, CHURNS.



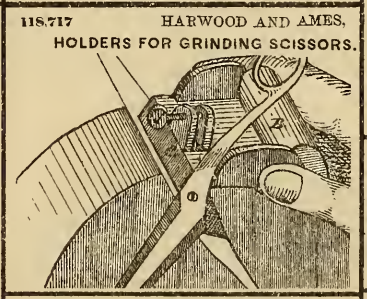
118,715 WILLIAM HAAS, STOP-VALVES.



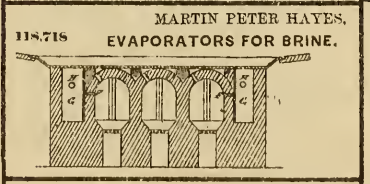
118,716 EDWARD P. HARNISH. SEED AND FERTILIZER-DROPPERS.



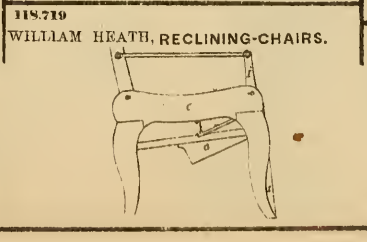
118,717 HARWOOD AND AMES, HOLDERS FOR GRINDING SCISSORS.



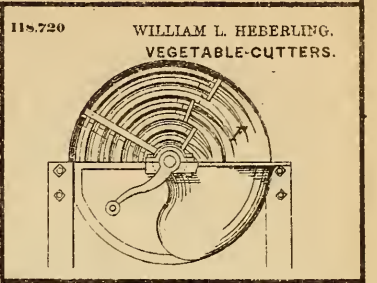
118,718 MARTIN PETER HAYES, EVAPORATORS FOR BRINE.



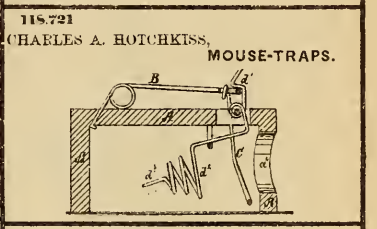
118,719 WILLIAM HEATH, RECLINING-CHAIRS.



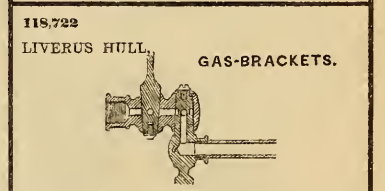
118,720 WILLIAM L. HEBERLING. VEGETABLE-CUTTERS.



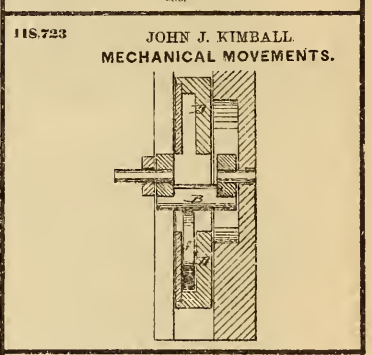
118,721 CHARLES A. HOTCHKISS, MOUSE-TRAPS.



118,722 LIVERUS HULL, GAS-BRACKETS.

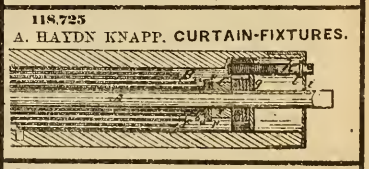


118,723 JOHN J. KIMBALL. MECHANICAL MOVEMENTS.

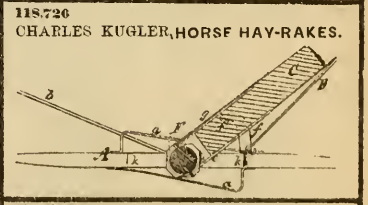


118,724 WILLIAM W. KITTLEMAN. TRACE-BUCKLES.

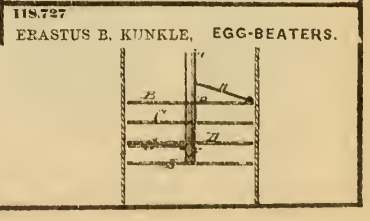
118,725 A. HAYDN KNAPP. CURTAIN-FIXTURES.



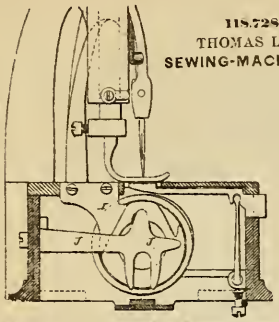
118,726 CHARLES KUGLER, HORSE HAY-RAKES.



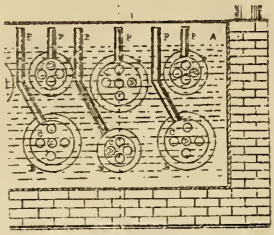
118,727 ERASTUS B. KUNKLE, EGG-BEATERS.



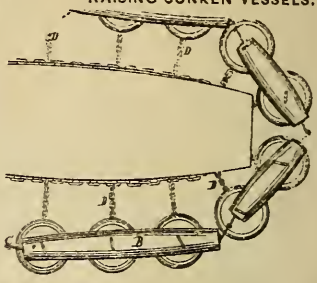
118,728 THOMAS LAMB. SEWING-MACHINES.



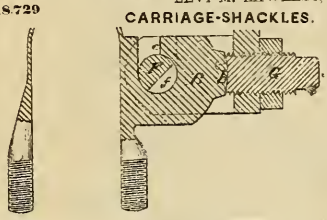
118,735 JOHN MANN. STEAM-GENERATORS.



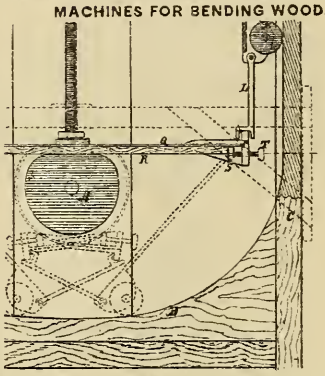
118,711 MILO OSBORN. RAISING SUNKEN VESSELS.



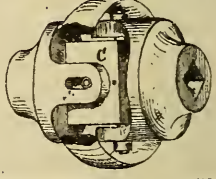
118,729 LEVI M. LAWLESS. CARRIAGE-SHACKLES.



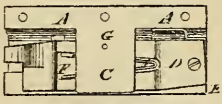
118,736 AUGUSTUS F. MARSHALL. MACHINES FOR BENDING WOOD.



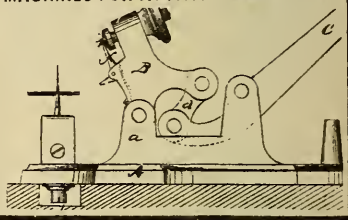
118,742 AURELIUS V. PITTS. SHAFT-COUPLINGS.



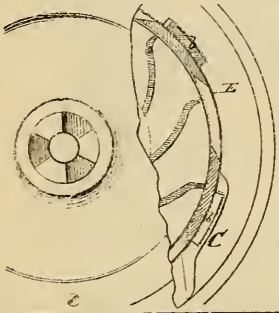
118,730 LEVI M. LAWLESS. WEATHER-STRIPS FOR DOORS.



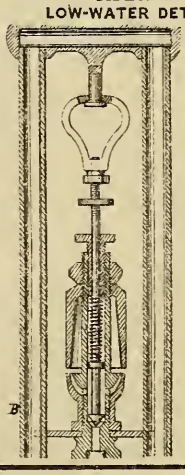
118,743 WILLIAM S. PLATT. MACHINES FOR ATTACHING BUTTONS.



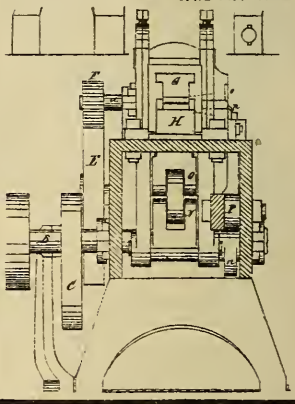
118,731 ALEXANDER C. LESNER. WATER-WHEELS.



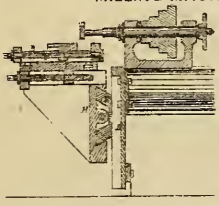
118,737 GIDEON B. MASSEY. LOW-WATER DETECTERS.



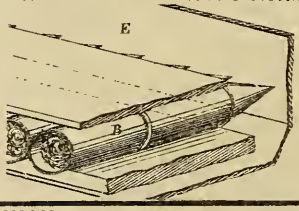
118,744 HENRY REESE. NAIL-MACHINES.



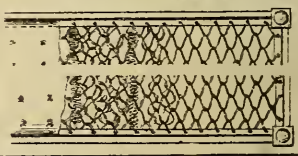
118,732 WILLIAM A. N. LONG. MILLING-MACHINES.



118,739 EDWARD A. METZ. APPARATUS FOR MAKING CIGARS.

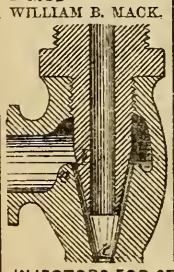


118,745 GEORGE RICHARDSON. BED-BOTTOMS.



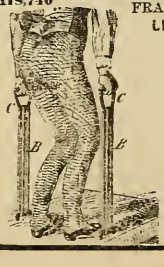
118,733 JOSEPH LUTTENCHLAGER. SOLES FOR BOOTS AND SHOES.

118,734 WILLIAM B. MACK.

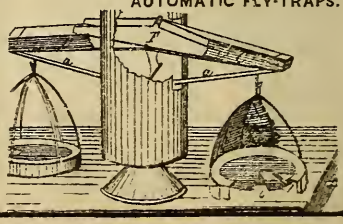


INJECTORS FOR STEAM-BOILERS.

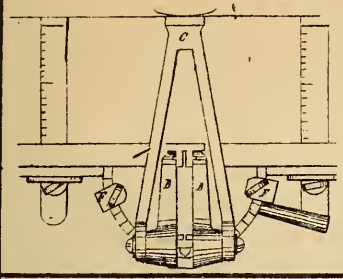
118,710 FRANCIS B. O'CONNOR. LIFTING-MACHINES.



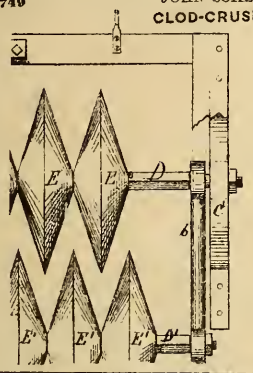
118,747 FRANK L. ROSENTRETER. AUTOMATIC FLY-TRAPS.



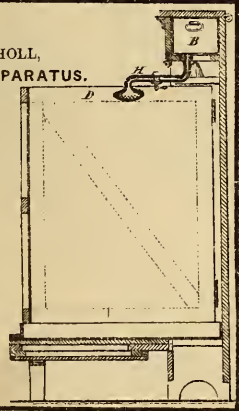
118,748 MARVIN OVEN BOYCE, MITER-BOXES.



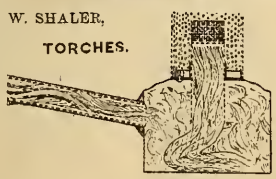
118,749 JOHN SCHLOSSER, CLOD-CRUSHERS.



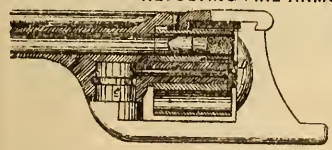
118,750 GEORGE SCHOLL, BATHING-APPARATUS.



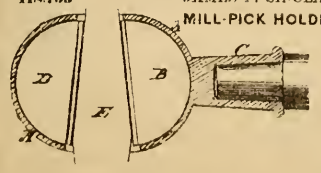
118,751 IRA W. SHALER, TORCHES.



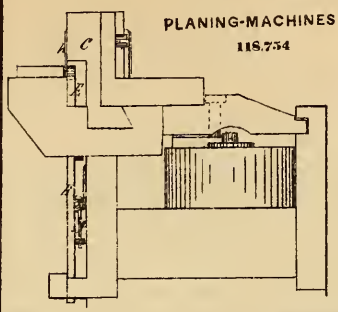
118,752 CHRISTIAN SHARPS, REVOLVING FIRE-ARMS.



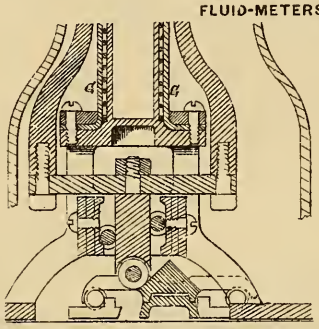
118,753 JAMES P. SINCLAIR, MILL-PICK HOLDERS.



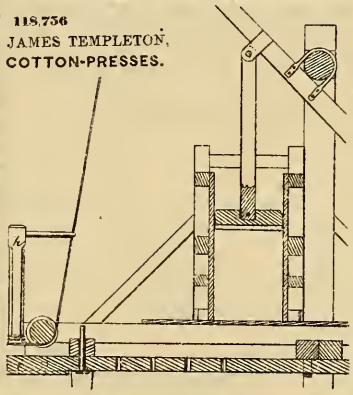
LUTHER T. SMART. PLANING-MACHINES 118,754



118,755 D. BRAINARD SPOONER. FLUID-METERS.

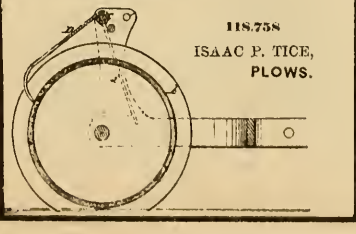


118,756 JAMES TEMPLETON, COTTON-PRESSES.

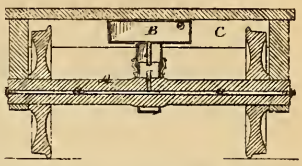


118,757 EDWARD H. THOMPSON, PAPER-FILES.

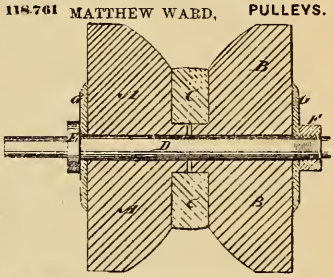
118,758 ISAAC P. TICE, PLOWS.



118,760 ARCHIBALD B. TRIPLER. PREVENTING RAILWAY AXLES FROM HEATING.

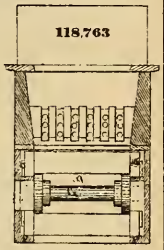


118,761 MATTHEW WARD, PULLEYS.

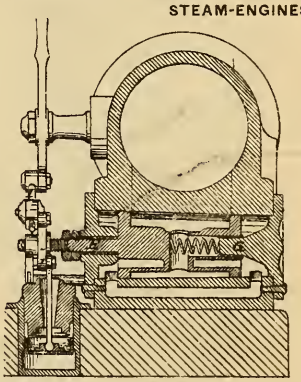


ROYAL F. WELLER. FIRE-GRATES. 118,762

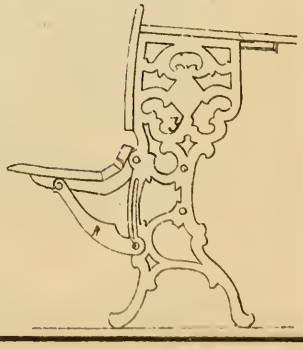
ASA A. WESTCOTT, STEPS FOR SPINDLES 118,763



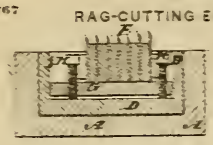
118,764 JEROME WHEELOCK, STEAM-ENGINES.



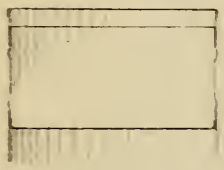
118,765 WHITING AND FISHER. SCHOOL-DESKS AND SEATS.



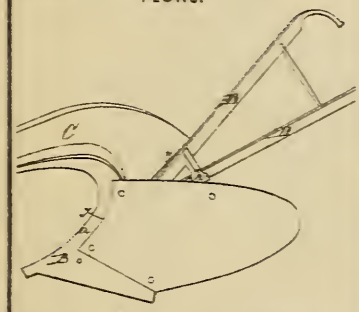
118,767 EDWARD WILKINSON.
RAG-CUTTING ENGINES.



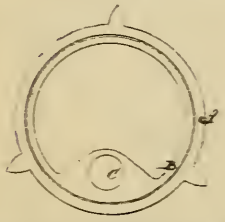
118,768 GEORGE F. WILSON.
PUTTING UP BAKING-POWDERS.



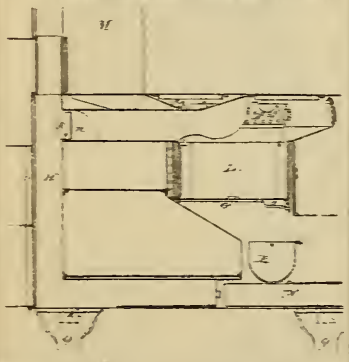
118,769 LEVI S. WILSON.
PLOWS.



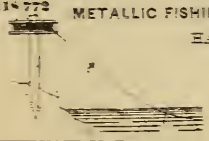
118,770 WING AND JOHNSON.
AXLE-BOXES.



118,771 HENRY E. WOLCOTT.
BASE-BURNING COOKING-STOVES.

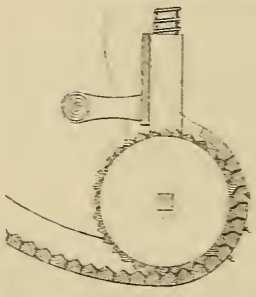


118,772 METALLIC FISHING-LINES.
HARBY CAMP.

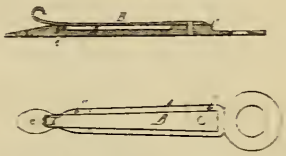


118,773 GALT AND TRACY
JOINTS FOR SCHOOL-DESKS.

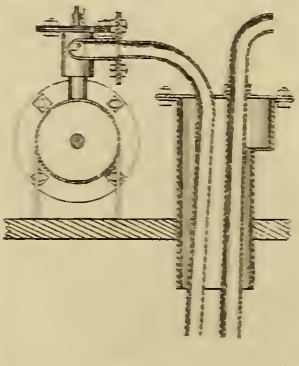
JAMES AND STREIT.
118,774 WASHING-MACHINES.

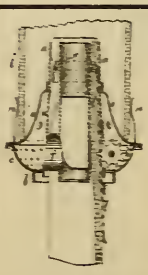


118,775 HENRY D. PAGE.
REIN-HOLDERS.



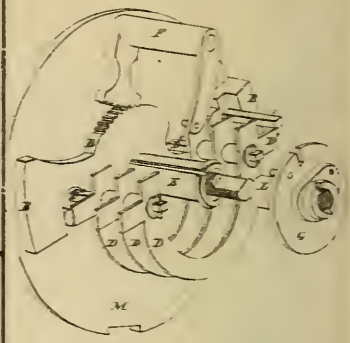
118,776 THOMAS W. MALONE.
APPARATUS FOR FORCING FLUIDS.



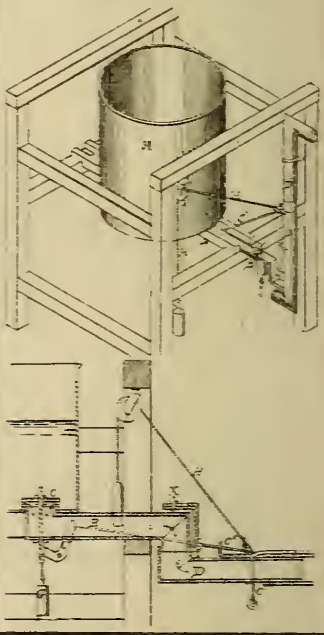


4,541 HIRAM W. HAYDEN.
LAMP-BURNERS.

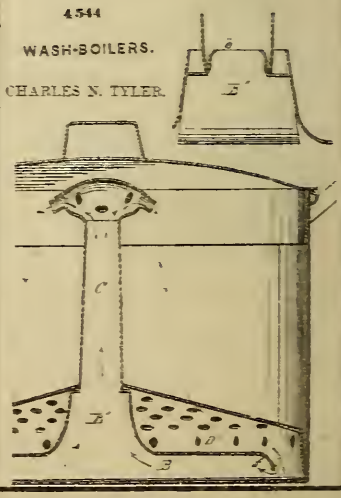
4,542 JULIUS C. HINTZ.
PERMUTATION LOCKS.



4,543 JOHN MORTON.
WATER-TANKS FOR RAILWAYS.



4,544 WASH-BOILERS.
CHARLES N. TYLER.



ILLUSTRATIONS OF PATENTS

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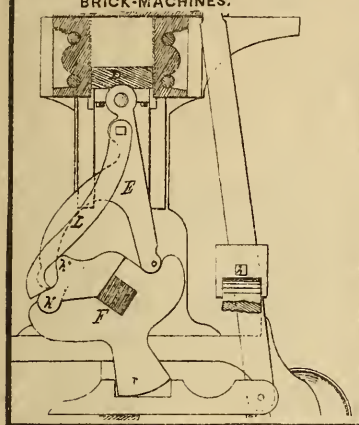
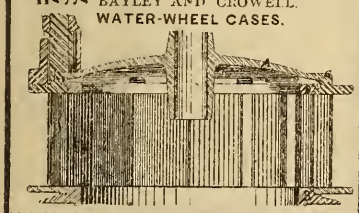
THE UNITED STATES PATENT OFFICE

SEPTEMBER 12, 1871.

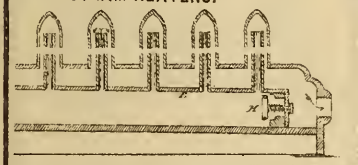
118,777 ALBAN ANDERSON
BRICK-MACHINES.



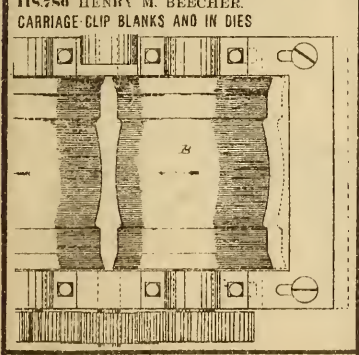
118,778 BAYLEY AND CROWELL.
WATER-WHEEL CASES.



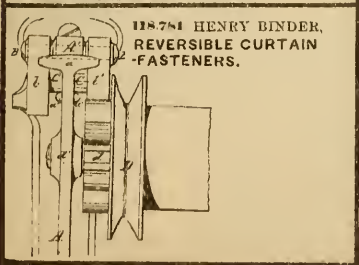
118,779 BEARUP AND CARRAHER.
STEAM HEATERS.



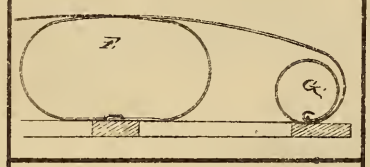
118,780 HENRY M. BEECHER.
CARRIAGE-CLIP BLANKS AND IN DIES



118,781 HENRY BINDER,
REVERSIBLE CURTAIN
-FASTENERS.



118,782 JOHN W. BLAKENEY,
SPRING-SEATS.



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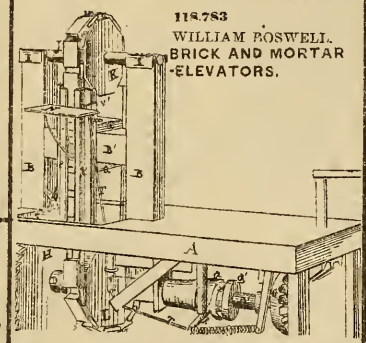
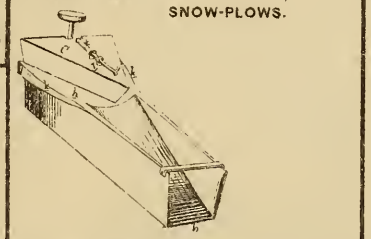
WILLIAM BOSWELL.
BRICK AND MORTAR
-ELEVATORS.



118,784 THOMAS SPENCE BROWN,
SNOW-PLOWS.



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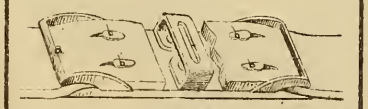
BELT-FASTENINGS.



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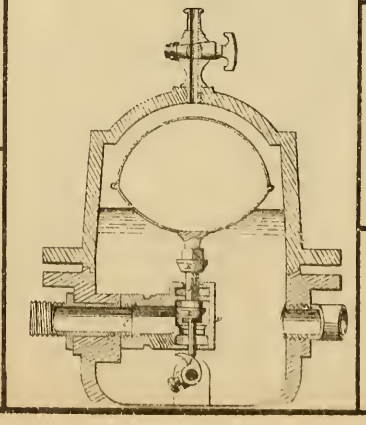
STEAM-TRAPS.



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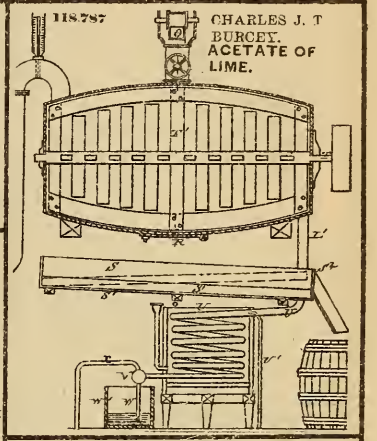
BURCEY.
ACETATE OF
LIME.



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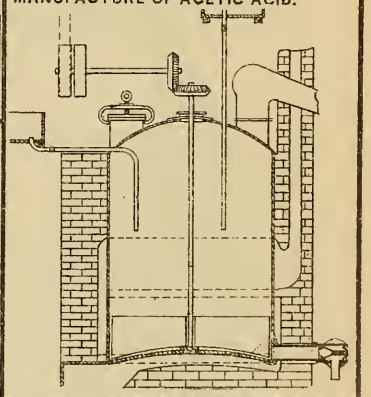
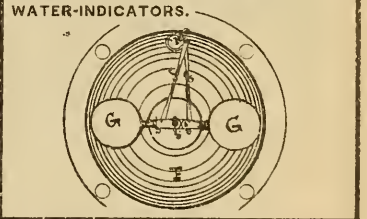
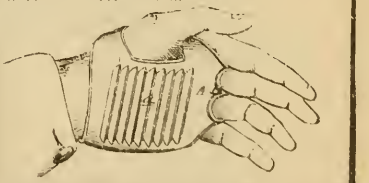
MANUFACTURE OF ACETIC ACID.



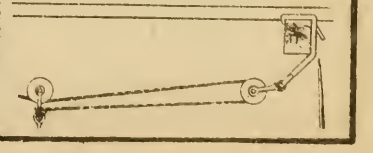
118,789 WILLIAM BUTTERFIELD.
WATER-INDICATORS.



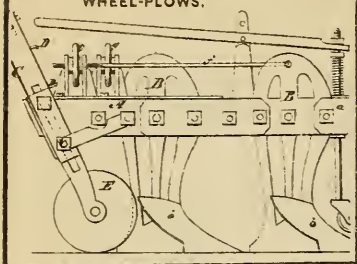
118,790 MARVIN CADWELL.
ELASTIC WASHING-MITTS.



118,791 FRANK CALVERT.
DEVICES FOR ELEVATING HAY.



118,792 WILLIAM J. CONNOR.
WHEEL-PLOWS.



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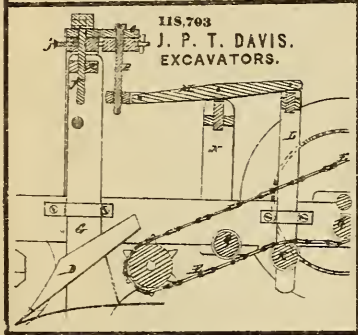
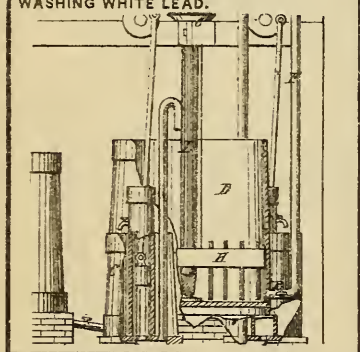
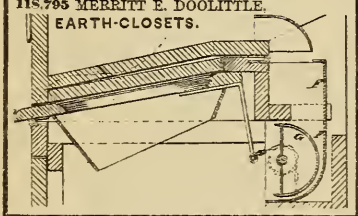
J. P. T. DAVIS.
EXCAVATORS.



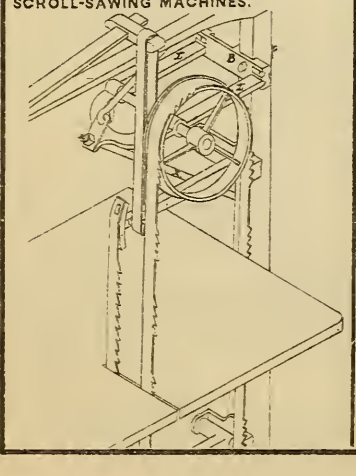
118,794 WILLIAM DAVISON.
WASHING WHITE LEAD.



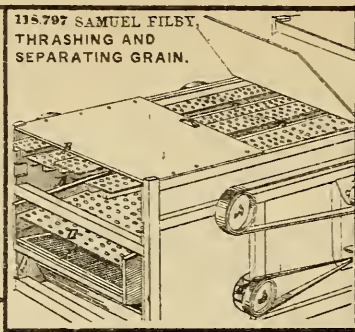
118,795 MERRITT E. DOOLITTLE.
EARTH-CLOSETS.



118,796 NATHANIEL T. EDSON.
SCROLL-SAWING MACHINES.



118,797 SAMUEL FILBY.
THRASHING AND
SEPARATING GRAIN.



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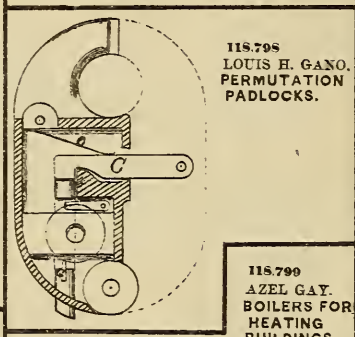
LOUIS H. GANO.
PERMUTATION
PADLOCKS.



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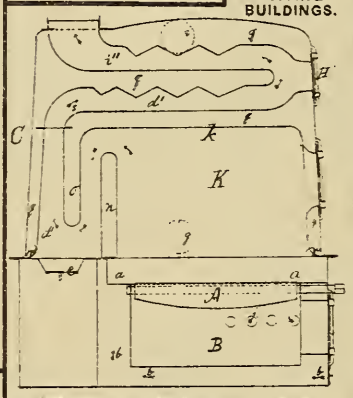
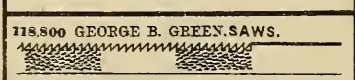
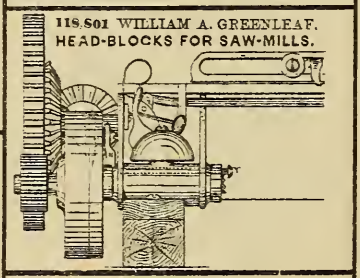
AZEL GAY.
BOILERS FOR
HEATING
BUILDINGS.



118,800 GEORGE B. GREEN.SAWS.



118,801 WILLIAM A. GREENLEAF.
HEAD-BLOCKS FOR SAW-MILLS.



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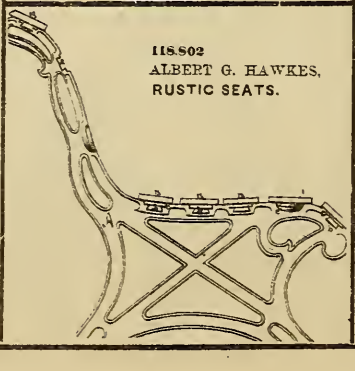
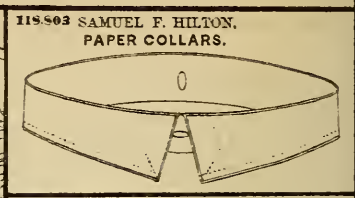
ALBERT G. HAWKES.
RUSTIC SEATS.



118,803 SAMUEL F. HILTON.
PAPER COLLARS.



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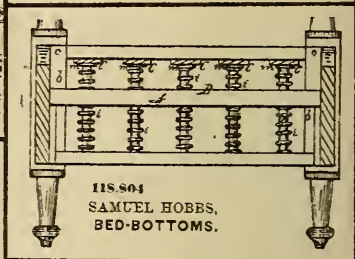
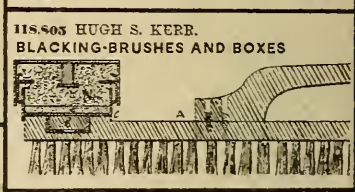
SAMUEL HOBBS.
BED-BOTTOMS.



118,805 HUGH S. KERR.
BLACKING-BRUSHES AND BOXES



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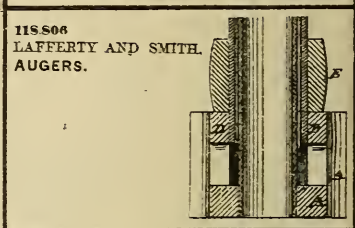
LAFFERTY AND SMITH.
AUGERS.



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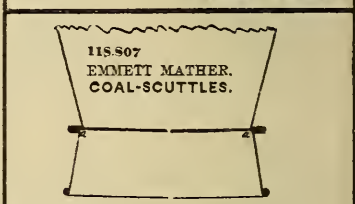
EMMETT MATHER.
COAL-SCUTTLES.



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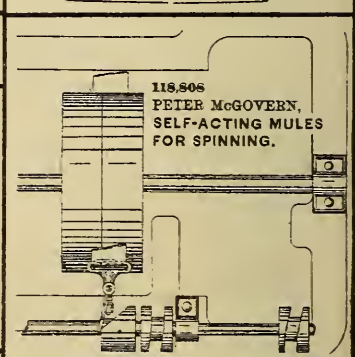
PETER McGOVERN.
SELF-ACTING MULES
FOR SPINNING.



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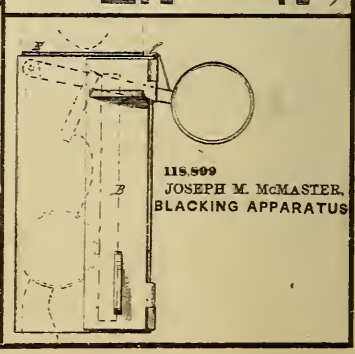
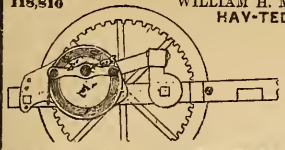
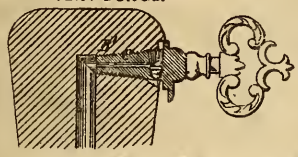
JOSEPH M. McMASTER.
BLACKING APPARATUS



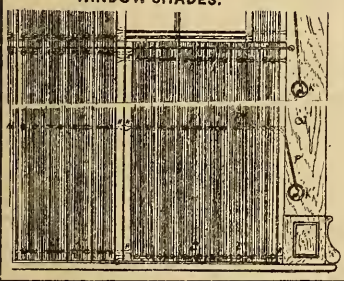
118,810 WILLIAM H. MICKLE, HAY-TEDDERS.



118,811 MILLER AND ASCOUGH. VENT-BUNGS.

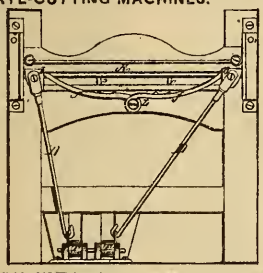


118,814 JOHN J. PHARES, WINDOW-SHADES.

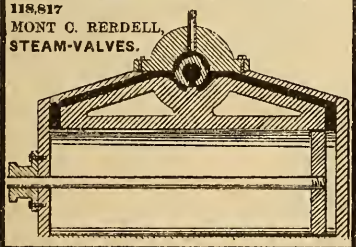


118,815 JORAM PREIST, WAGON-WHEELS.

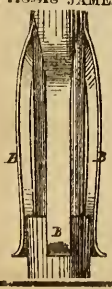
118,816 WILLIAM H. RAYNER, SLATE-CUTTING MACHINES.



118,817 MONT C. RERDELL, STEAM-VALVES.



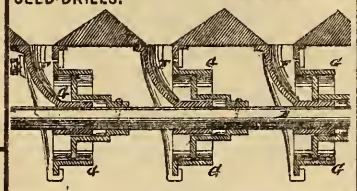
118,818 JAMES RITCHIE, PLUGGING LEAKY BOILER-TUBES.



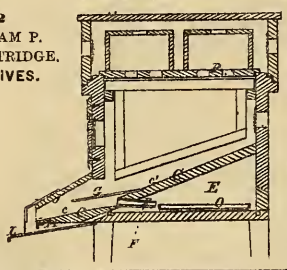
118,819 HENRY SAWYER, PUTTING UP POWDERS.

118,820 FERDENAND SELLE, WHIP-SOCKETS.

118,821 RICHARD B. SHELDON, SEED-DRILLS.

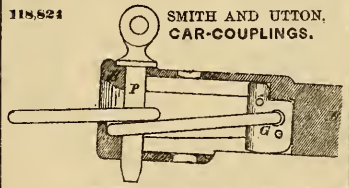


118,822 WILLIAM P. SHORTRIDGE, BEE-HIVES.

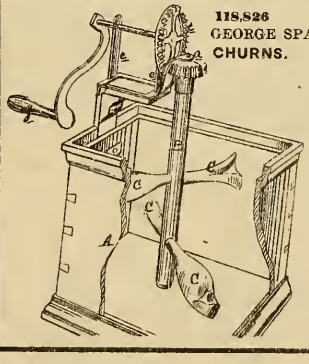


118,823 HIRAM N. SMADE, EXTRACTING PACKINGS FROM STUFFING-BOXES.

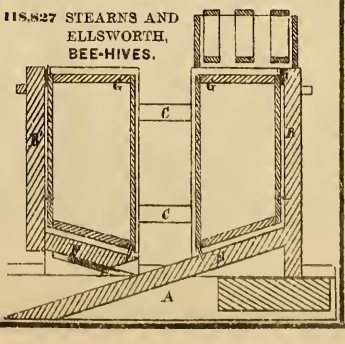
118,824 SMITH AND UTTON, CAR-COUPLINGS.



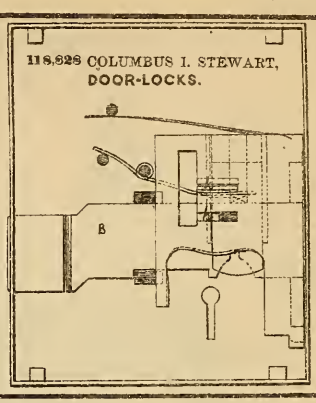
118,826 GEORGE SPAYD, CHURNS.



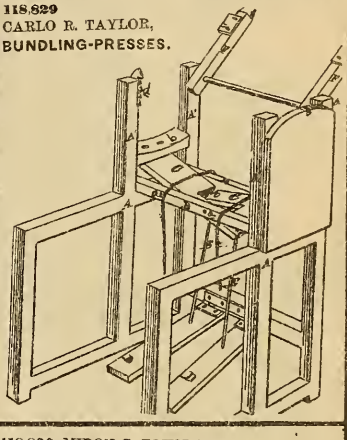
118,827 STEARNS AND ELLSWORTH, BEE-HIVES.



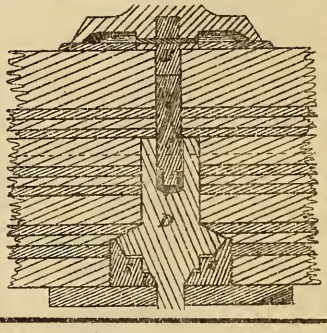
118,828 COLUMBUS I. STEWART, DOOR-LOCKS.



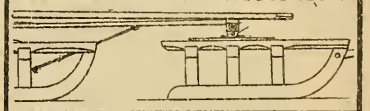
118,829 CARLO R. TAYLOR, BUNDLING-PRESSES.



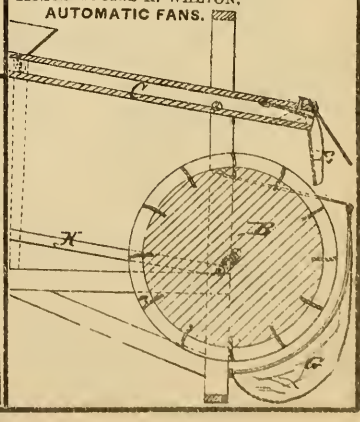
118,830 MIRON G. TOUSLEY. SPINDLES FOR SAFE-LOCKS.



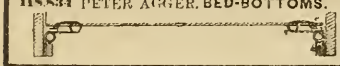
118,831 AARON H. WALRATH, BOB-SLEDS.

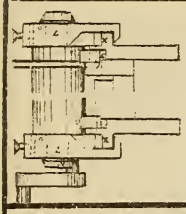


118,832 LUCIUS A. WALTON, AUTOMATIC FANS.



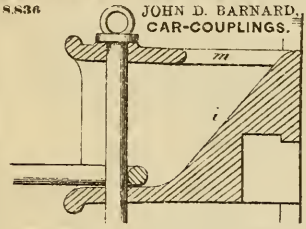
118,834 PETER AGGER, BED-BOTTOMS.



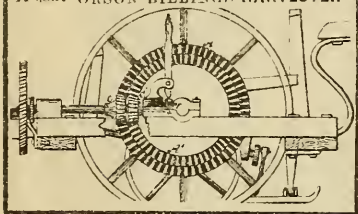


118,835 FRANKLIN L. BAILEY, PRINTING-PRESSES.

118,836 JOHN D. BARNARD, CAR-COUPLINGS.



118,837 ORSON BILLINGS HARVESTER



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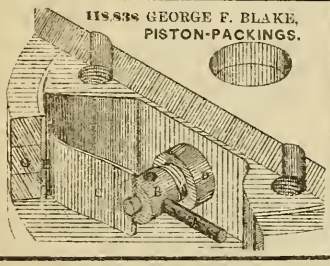
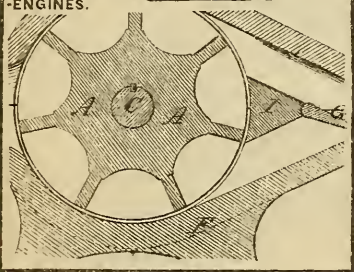
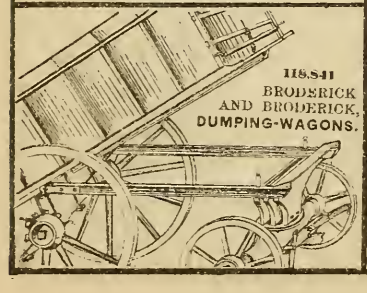


118,839 MELLEN BRAY, BOOT AND SHOE-HEELS.

118,840 BRIGGS AND H. DENSMORE, ROTARY STEAM-ENGINES.





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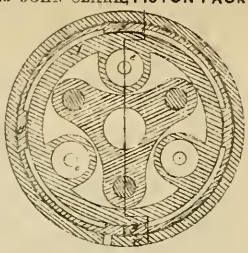
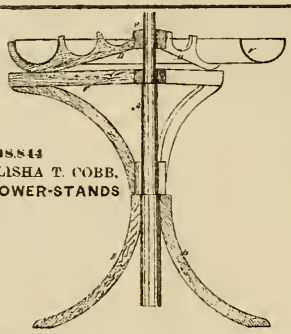
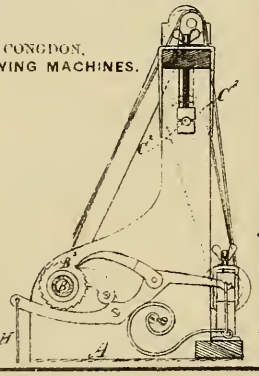
118,843 JOHN CLARK, PISTON-PACKINGS.



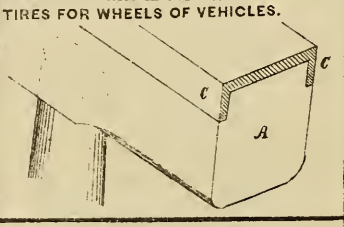


118,844 ELISHA T. COBB, FLOWER-STANDS

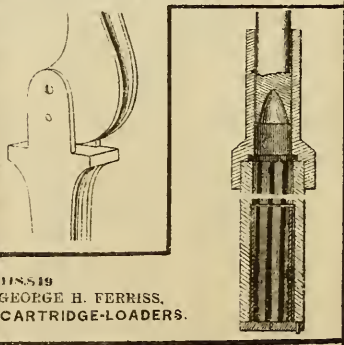
118,845 JAMES W. CONGDON, BROOM-TYING MACHINES.



118,846 WILLIAM H. DAVIS, TIRES FOR WHEELS OF VEHICLES.



118,847 HORATIO W. DOE, BENDING TUBES OF SHEET METAL.



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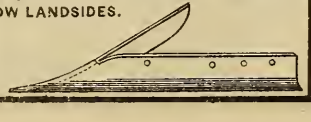
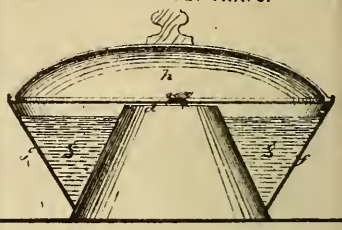
118,848 DUFF, AND ROBERTS AND NOURSE PLOW LANDSIDES.

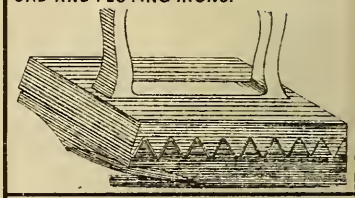


118,851 GEORGE GOODYEAR, SHANKS FOR BOOTS AND SHOES.

118,852 LOUIS GRIM, FLY-TRAPS.



118,854 JAMES K. GULIHUR, SAD AND FLUTING-IRONS.



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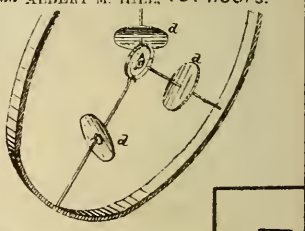
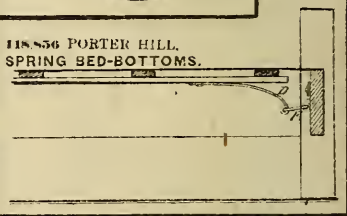


118,856 PORTER HILL, SPRING BED-BOTTOMS.



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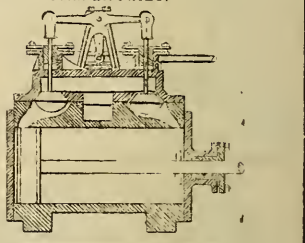
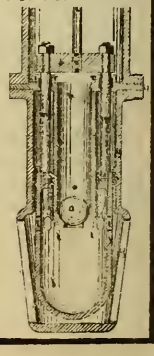


118,858 JERALDS, NETTLETON, AND LAWTON, MANUFACTURING FERRULES.

118,859 JULIUS JONSON, PUMPS.



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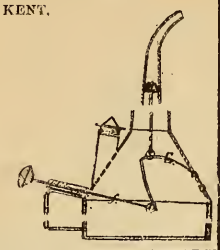
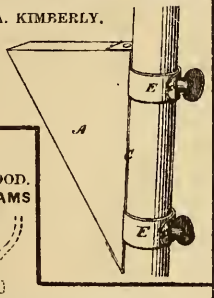
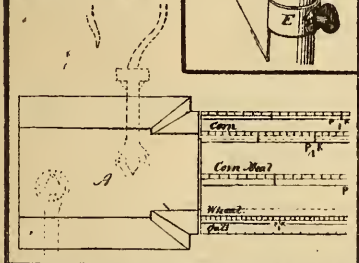
LAWRENCE W. KENT.
OIL-CANS.



118,861 LEWIS A. KIMBERLY.
BOYS' STILTS.

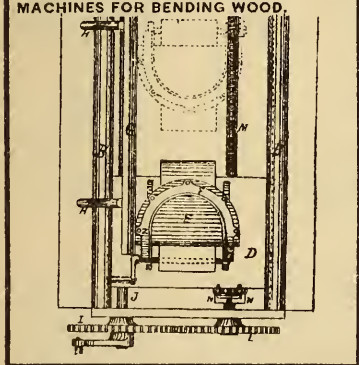


118,862
HENRY KIRKWOOD.
STEELYARD-BEAMS

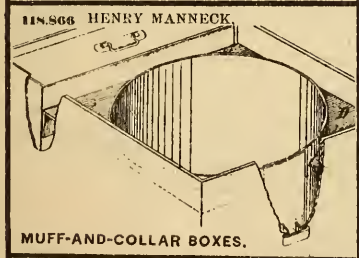


118,863 DAVID K. KRAATZ. WATER-WHEEL

118,864 EDWARD LACEY.
MACHINES FOR BENDING WOOD.

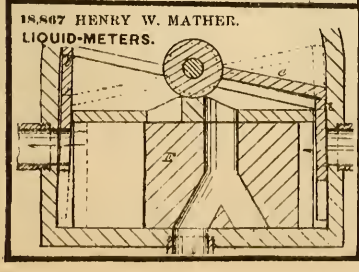


118,866 HENRY MANNECK.

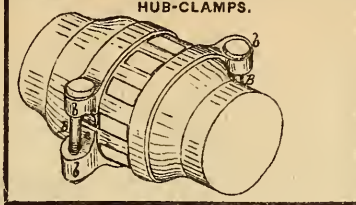


MUFF-AND-COLLAR BOXES.

18,867 HENRY W. MATHER.
LIQUID-METERS.



118,868 JAMES McCLELLAND.
HUB-CLAMPS.



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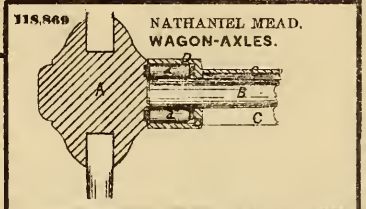
WAGON-AXLES.



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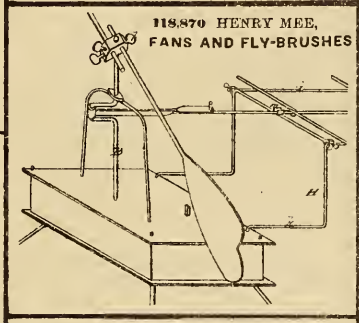
FANS AND FLY-BRUSHES



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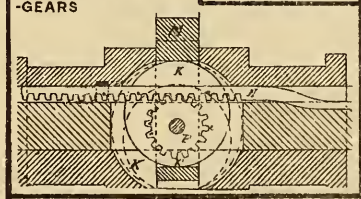
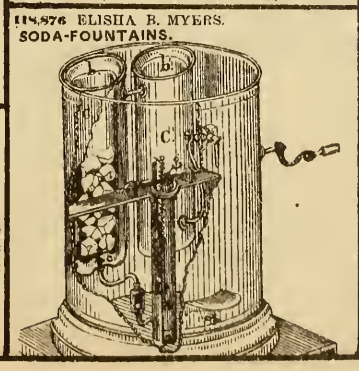
JAMES MINETREE
BRUSHES.

118,873
JAMES MONTFORT.
CUT-OFF VALVE
-GEARS



118,874
GEORGE R. MOORE.
STOVE-GRATES.

118,876 ELISHA B. MYERS.
SODA-FOUNTAINS.



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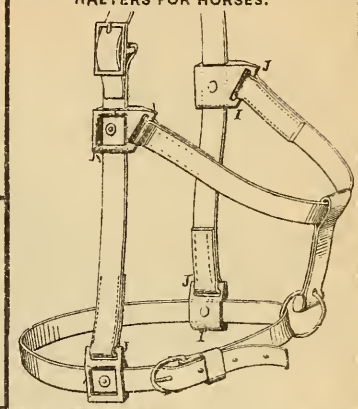
HALTERS FOR HORSES.



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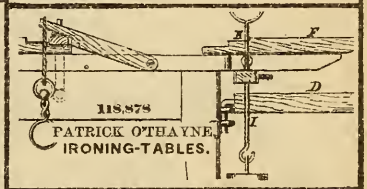
PATRICK O'HAYNE.
IRONING-TABLES.



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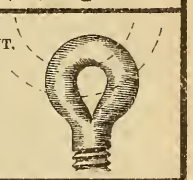
EBENEZER H. PLANT.
HEADS OF SCREW
EYEBOLTS.



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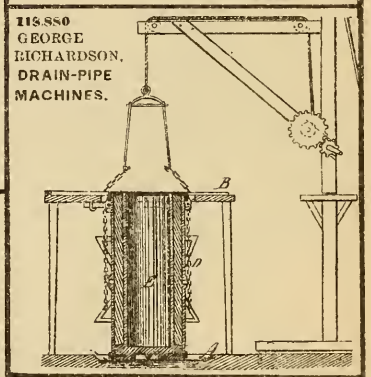
GEORGE
RICHARDSON.
DRAIN-PIPE
MACHINES.



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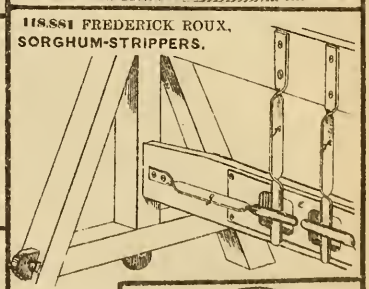
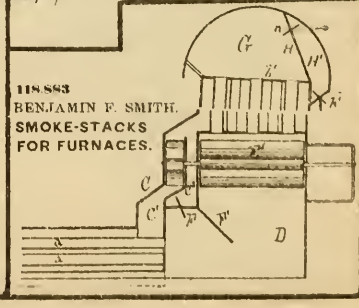
SORGHUM-STRIPPERS.



118,883
BENJAMIN F. SMITH.
SMOKE-STACKS
FOR FURNACES.



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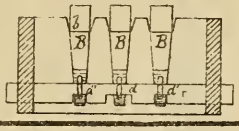
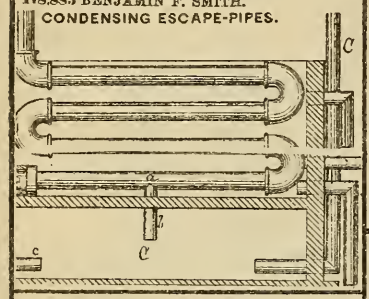
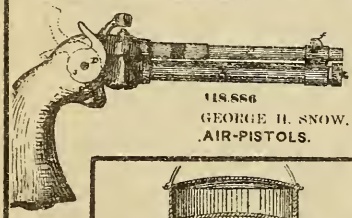
FURNACE-GRATES.



118,885 BENJAMIN F. SMITH.
CONDENSING ESCAPE-PIPES.





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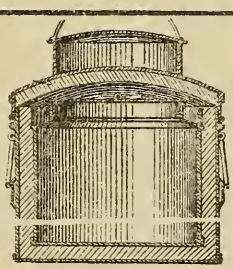
GEORGE H. SNOW.
AIR-PISTOLS.



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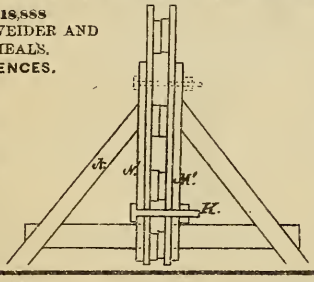
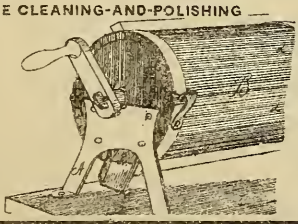
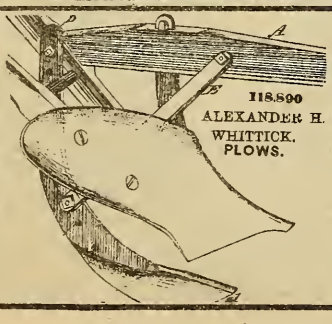
SAMUEL
STROOCK.
MILK-CANS.

118,888
WEIDER AND
MEALS.
FENCES.



118,889 JOHN N. WHITE.
RICE CLEANING-AND-POLISHING





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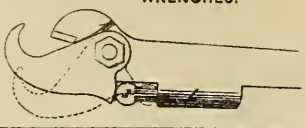
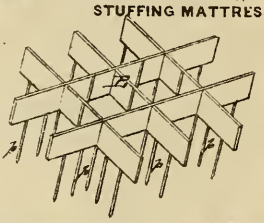
ALEXANDER H.
WHITTICK.
PLOWS.

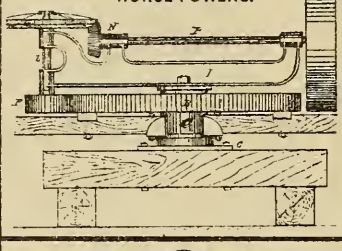
118,891 WILCOX, AND WILCOX.
WRENCHES.



118,892 EDWIN L. WRIGHT.
STUFFING MATTRESSES,



118,893 JAMES M. ALBERTSON
HORSE-POWERS.



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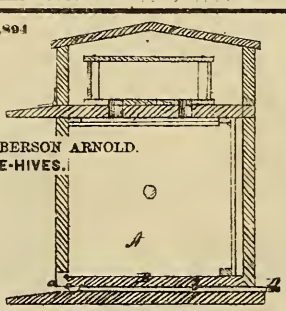
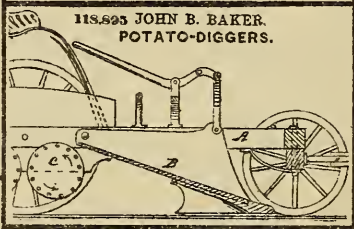
ROBERSON ARNOLD.
BEE-HIVES.

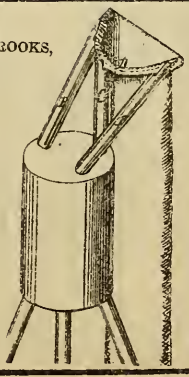


118,895 JOHN B. BAKER.
POTATO-DIGGERS.

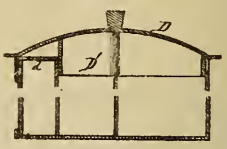


118,896 WILLIAM HENRY BARKER,
POT-COVERS.

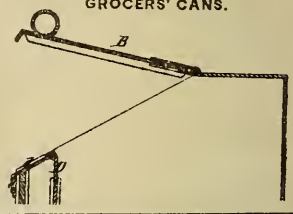
118,897
BARRETT AND BROOKS,
BAG-HOLDERS.



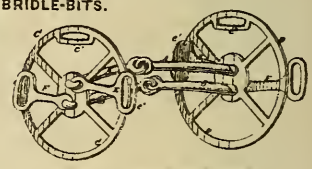
118,898 JESSE S. BATCHELDER,
CONFECTIONERY-JARS.



118,899 JESSE S. BATCHELDER.
GROCERS' CANS.



118,900 SMITH C. BOUGHTON.
BRIDLE-BITS.



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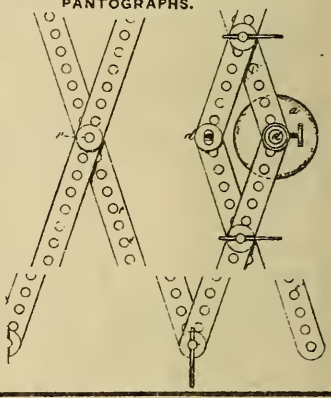

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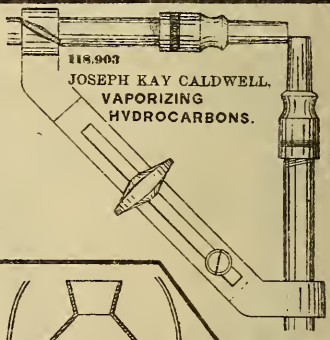
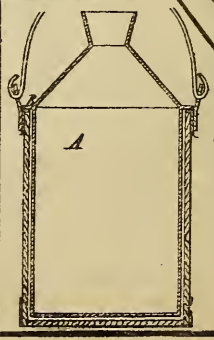
JOSEPH KAY CALDWELL,
VAPORIZING
HYDROCARBONS.





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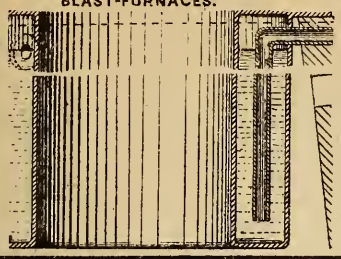
ORRIN S. CAMP.
WOOD-INCASED
CANS.

118,905 ISRAEL B. B. CASE.
BLAST-FURNACES.



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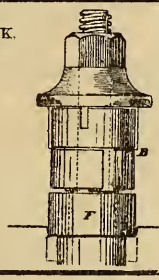
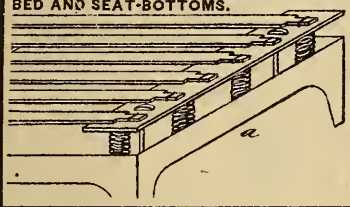
BED-SPRINGS.

118,907
MILTON W. CLARK.
CUTTER-HEADS



118,908 WILLIAM F. CLARK.
BED AND SEAT-BOTTOMS.



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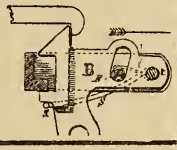
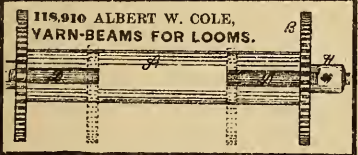
MAX. CLAVER,
SPRING-LOCKS



118,910 ALBERT W. COLE,
YARN-BEAMS FOR LOOMS.



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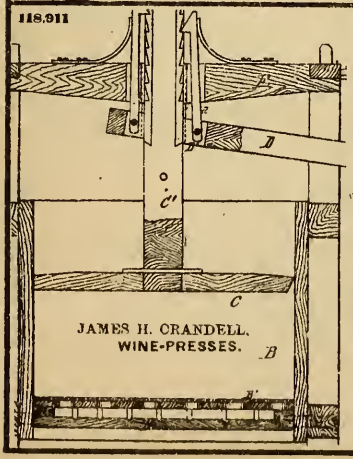
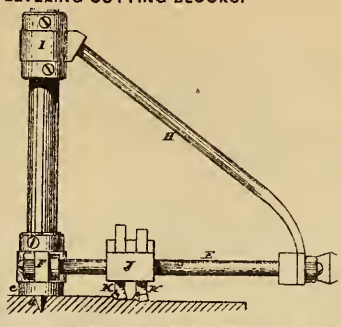
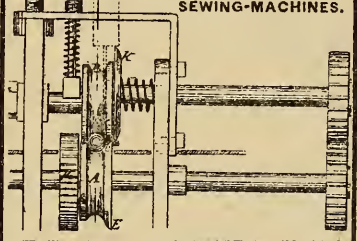


JAMES H. CRANDELL.
WINE-PRESSES.

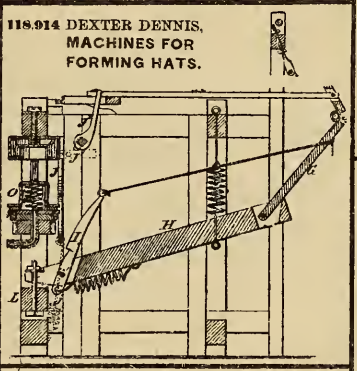
118,912 ANDREW DAVIS.
LEVELING CUTTING-BLOCKS.



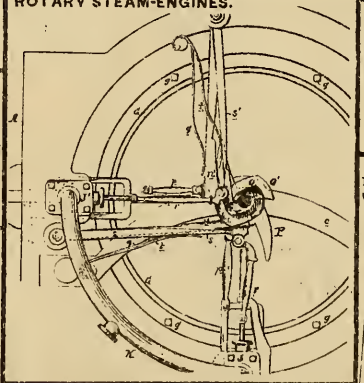
118,913
FREDERICK E. DECKER.
SEWING-MACHINES.



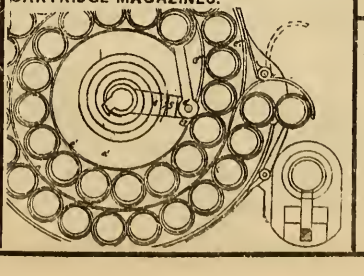
118,914 DEXTER DENNIS,
MACHINES FOR
FORMING HATS.



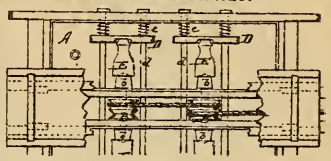
118,915 FRANCIS OLIVER DESCHAMPS.
ROTARY STEAM-ENGINES.



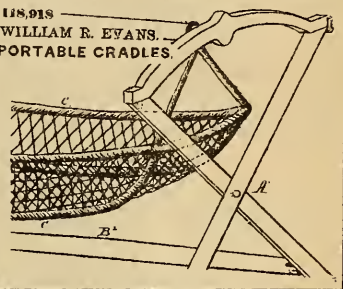
118,916 WILLIAM H. ELLIOT.
CARTRIDGE-MAGAZINES.



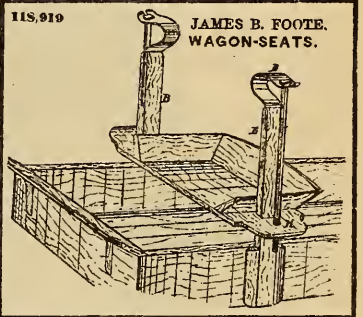
118,917 CONRAD EULER,
BOTTLE-WASHING MACHINES.



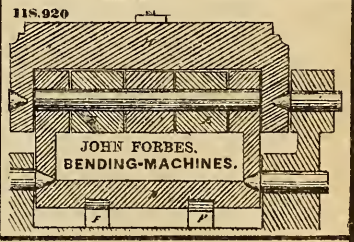
118,918
WILLIAM R. EVANS.
PORTABLE CRADLES.



118,919 JAMES B. FOOTE.
WAGON-SEATS.

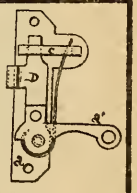


118,920

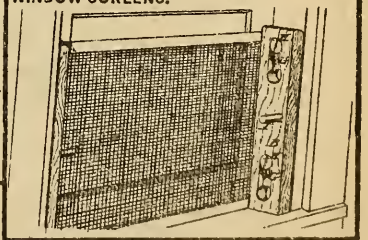


JOHN FORBES.
BENDING-MACHINES.

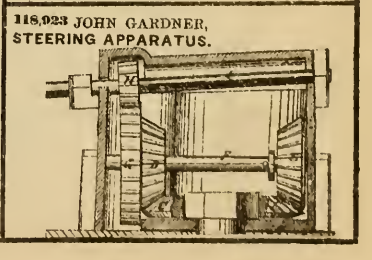
118,921
AUGUST FREUTAL,
SPRING-LOCKS FOR
-SASHES.



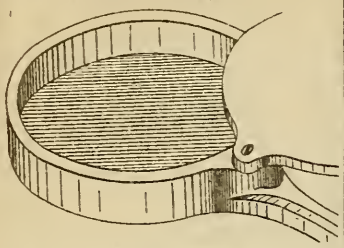
118,922 OSCAR F. FROST,
WINDOW-SCREENS.



118,923 JOHN GARDNER,
STEERING APPARATUS.



118,924 EDWARD M. GATES.
BLACKING-BOXES.



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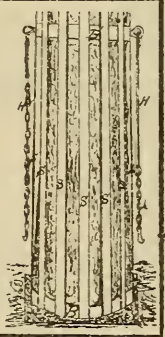
JOHN GIBSON, JR.
TREE-BOXES.



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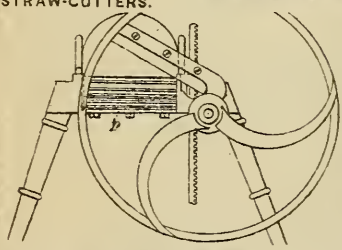
BENJAMIN F. GRIMES
STRAW-CUTTERS.



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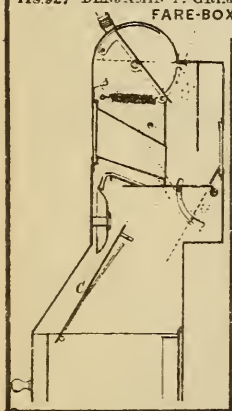
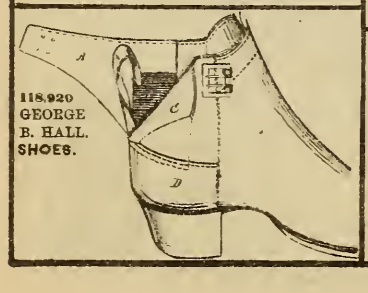
FARE-BOXES FOR CARS.

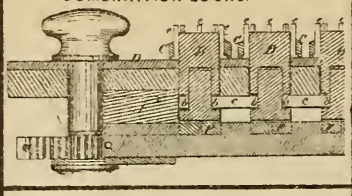


118,928
FRANCIS
ELIJAH
HAHN,
MACHINES.
SEWING-

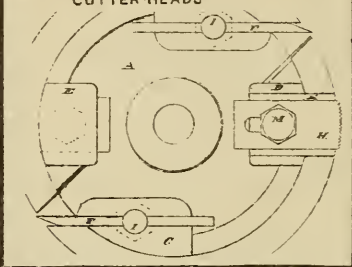
118,920
GEORGE
B. HALL.
SHOES.



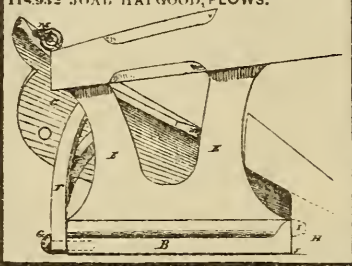
118,930 WILLIAM N. HALL.
COMBINATION LOCKS.

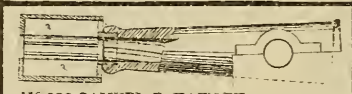


118,931 EMINEL P. HALSTED.
CUTTER-HEADS



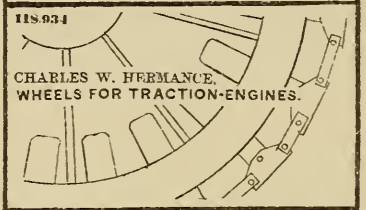
118,932 JOAB HARGOOD, PLOWS.



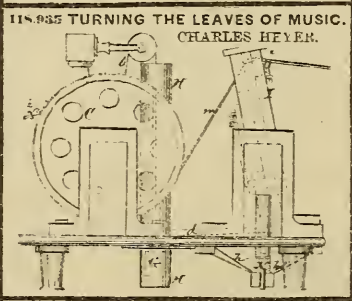


118,933 SAMUEL F. HAWLEY.
RECOIL-OBVIATORS
FOR ORDNANCE.

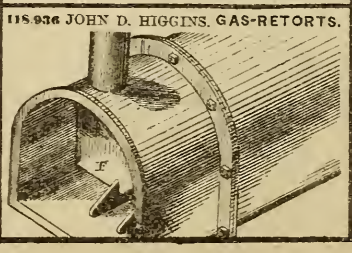
118,934
CHARLES W. HERMANCE.
WHEELS FOR TRACTION-ENGINES.



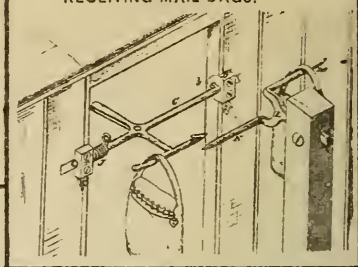
118,935 TURNING THE LEAVES OF MUSIC.
CHARLES HEYER.



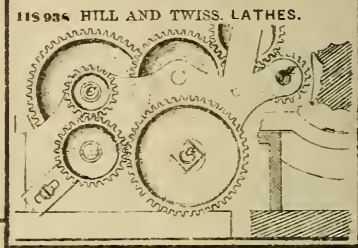
118,936 JOHN D. HIGGINS. GAS-RETORTS.



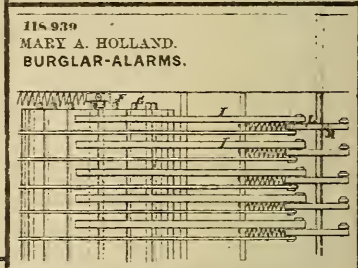
118,937 GEORGE W. HILDRETH.
RECEIVING MAIL-BAGS.



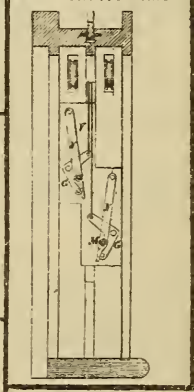
118,938 HILL AND TWISS. LATHES.



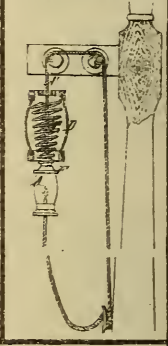
118,939
MARY A. HOLLAND.
BURGLAR-ALARMS.



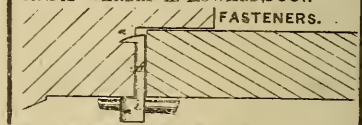
118,940
MARY A. HOLLAND.
BURGLAR-ALARMS



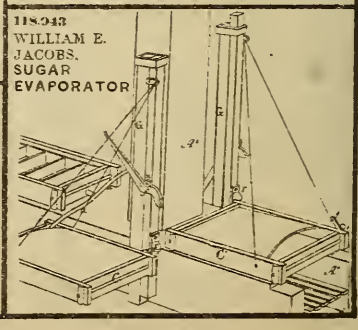
118,941
ALEXANDER
M. HOLMES.
SIGNAL-LIGHTS.



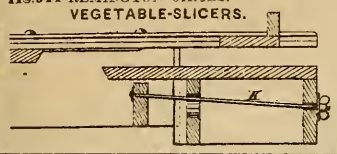
118,942 WARREN A. HOWARD, DOOR-
FASTENERS.



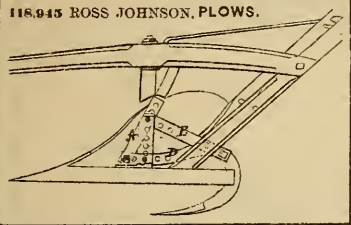
118,943
WILLIAM E.
JACOBS.
SUGAR
EVAPORATOR



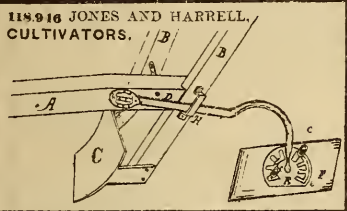
118,944 REMINGTON JAMES.
VEGETABLE-SLICERS.



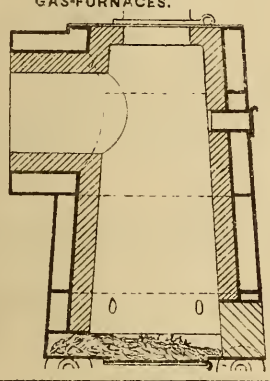
118,945 ROSS JOHNSON, PLOWS.



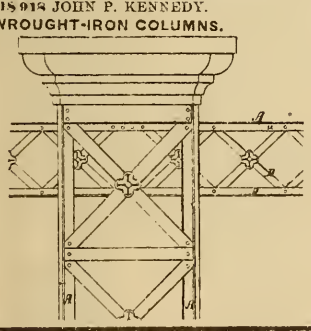
118,946 JONES AND HARRELL.
CULTIVATORS.



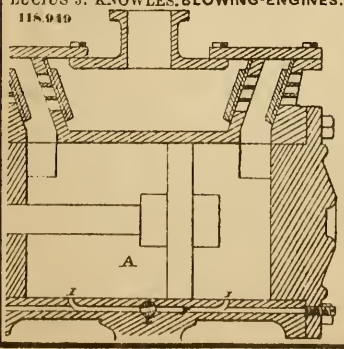
118,947 JOHN JORDAN.
GAS-FURNACES.



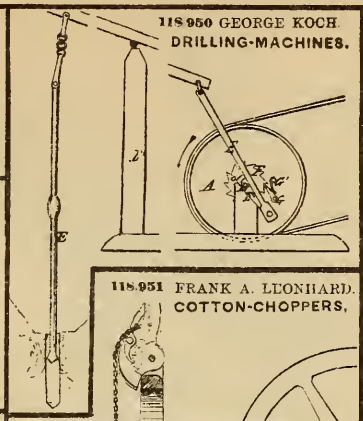
118,948 JOHN P. KENNEDY.
WROUGHT-IRON COLUMNS.



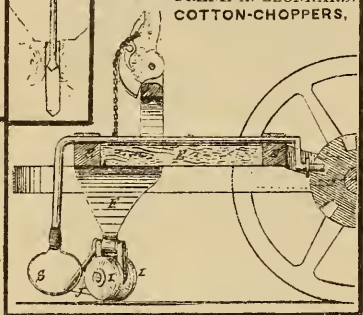
LUCIUS J. KNOWLES, BLOWING-ENGINES.
118,949



118,950 GEORGE KOCH.
DRILLING-MACHINES.



118,951 FRANK A. LEONHARD.
COTTON-CHOPPERS.



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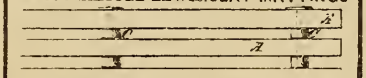
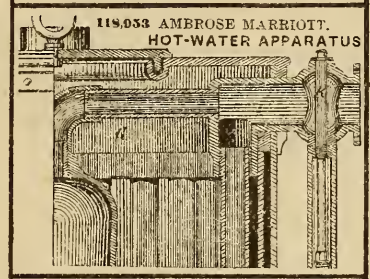
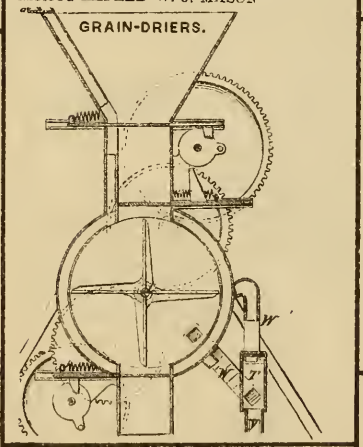


118,953 AMBROSE MARRIOTT.
HOT-WATER APPARATUS



118,954 ALFRED W. J. MASON
GRAIN-DRIERS.



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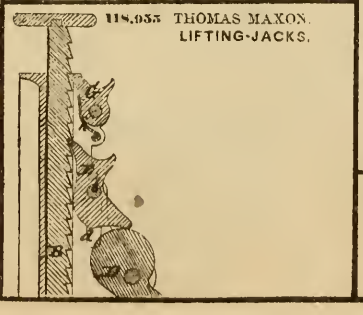
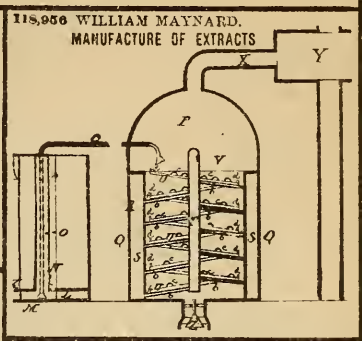
LIFTING-JACKS.



118,956 WILLIAM MAYNARD.
MANUFACTURE OF EXTRACTS



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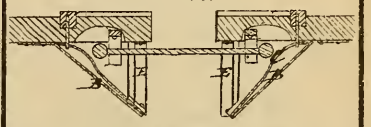
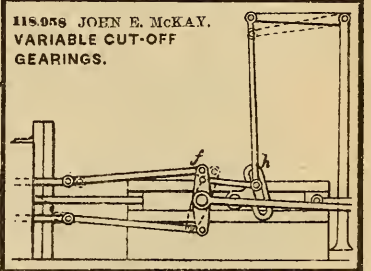
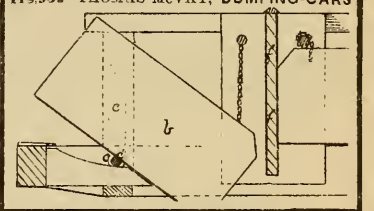
CAR-COUPLINGS.



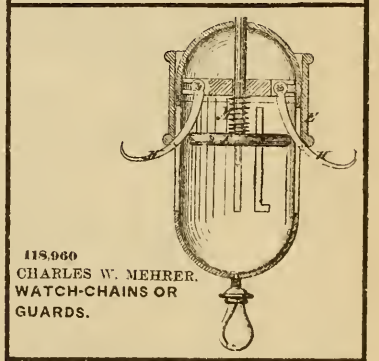
118,958 JOHN E. McKAY.
VARIABLE CUT-OFF
GEARINGS.



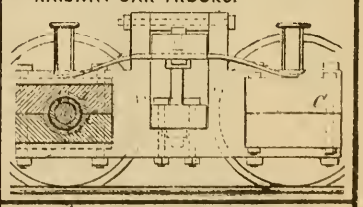
118,959 THOMAS McVAY, DUMPING-CARS



118,960
CHARLES W. MEHRER.
WATCH-CHAINS OR
GUARDS.



118,961 JOHN R. MESTIER.
RAILWAY-CAR TRUCKS.



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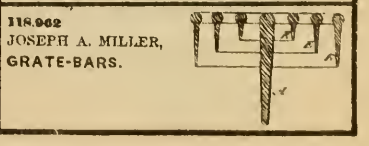
JOSEPH A. MILLER,
GRATE-BARS.



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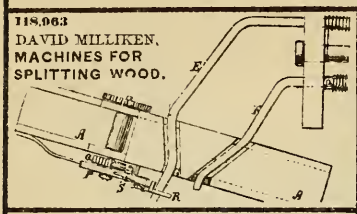
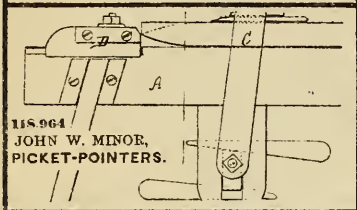
DAVID MILLIKEN,
MACHINES FOR SPLITTING WOOD.



118,964
JOHN W. MINOR,
PICKET-POINTERS.



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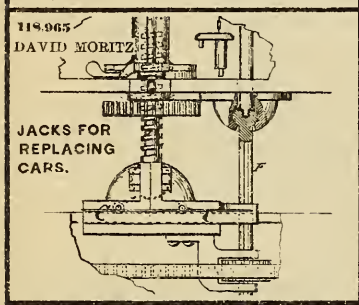
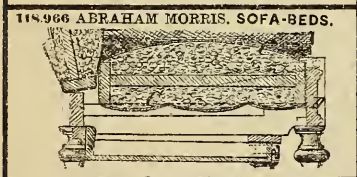
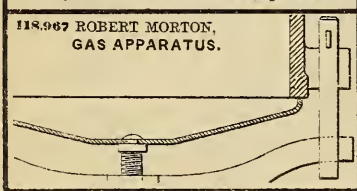
DAVID MORITZ,
JACKS FOR REPLACING CARS.



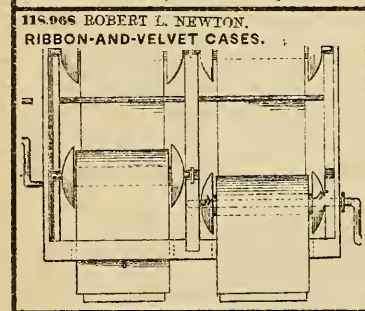
118,966 ABRAHAM MORRIS, SOFA-BEDS.



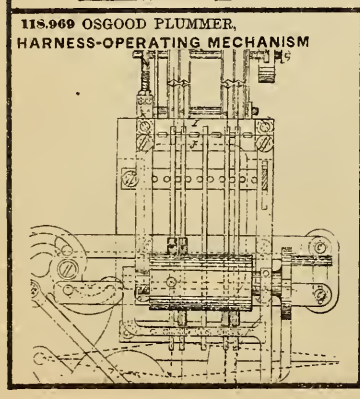
118,967 ROBERT MORTON,
GAS APPARATUS.



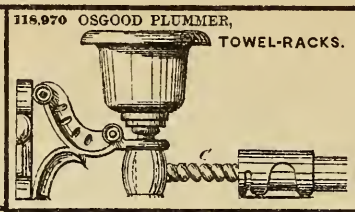
118,968 ROBERT L. NEWTON,
RIBBON-AND-VELVET CASES.



118,969 OSGOOD PLUMMER,
HARNESS-OPERATING MECHANISM



118,970 OSGOOD PLUMMER,
TOWEL-RACKS.



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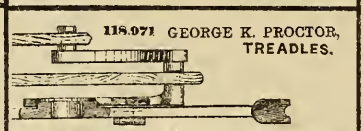
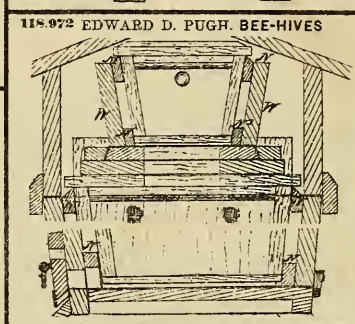
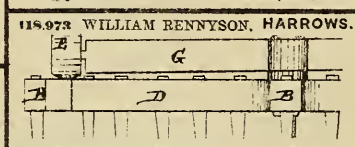
TREADLES.



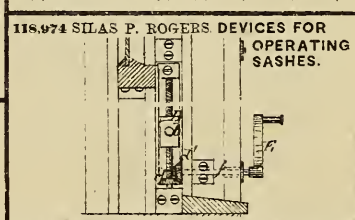
118,972 EDWARD D. PUGH, BEE-HIVES



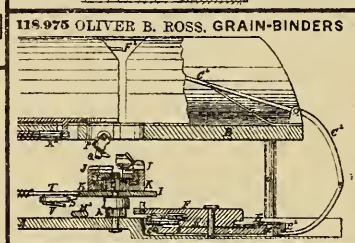
118,973 WILLIAM RENNYSON, HARROWS.



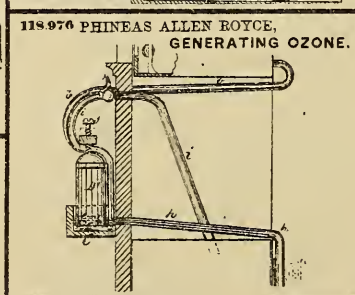
118,974 SILAS P. ROGERS, DEVICES FOR OPERATING SASHES.



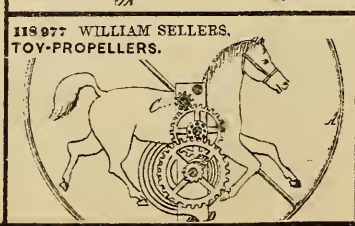
118,975 OLIVER B. ROSS, GRAIN-BINDERS



118,976 PHINEAS ALLEN ROYCE,
GENERATING OZONE.

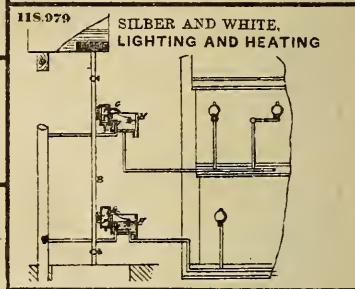


118,977 WILLIAM SELLERS,
TOY-PROPELLERS.



118,978
C. LATHAM SHOLES,
NUMBERING-MACHINES

118,979
SILBER AND WHITE,
LIGHTING AND HEATING



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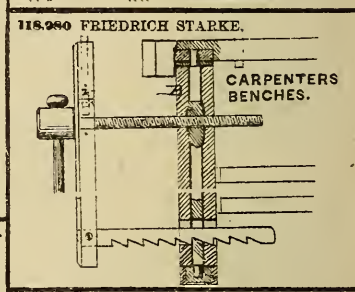
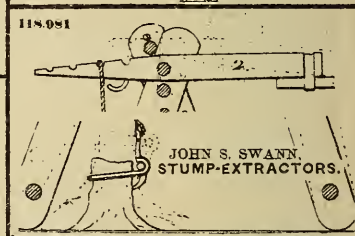
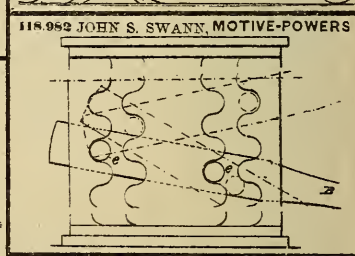
CARPENTERS BENCHES.



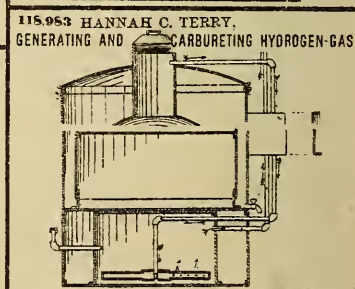
118,981
JOHN S. SWANN,
STUMP-EXTRACTORS.



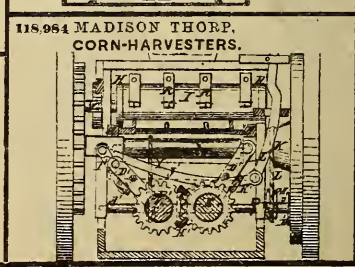
118,982 JOHN S. SWANN, MOTIVE-POWERS



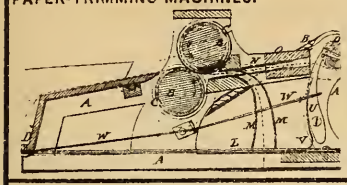
118,983 HANNAH C. TERRY,
GENERATING AND CARBURETING HYDROGEN-GAS



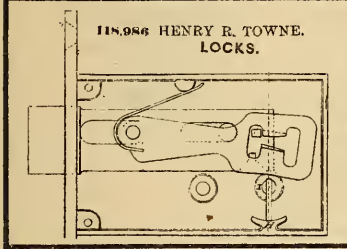
118,984 MADISON THORP,
CORN-HARVESTERS.



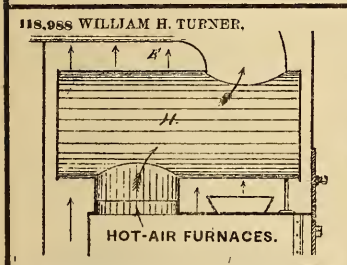
118,985 HERBERT L. TODD,
PAPER-TRIMMING MACHINES.



118,986 HENRY R. TOWNE.
LOCKS.

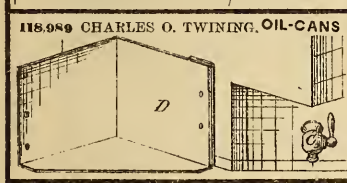


118,988 WILLIAM H. TURNER,

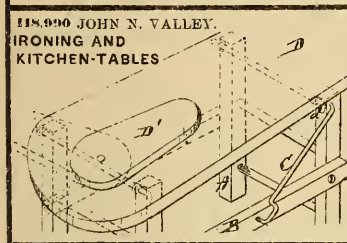


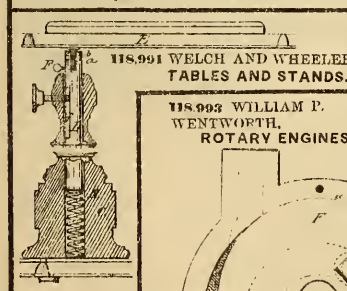
HOT-AIR FURNACES.

118,989 CHARLES O. TWINING, OIL-CANS



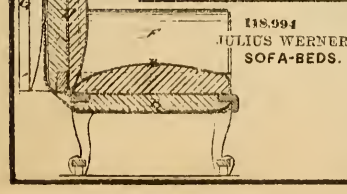
118,990 JOHN N. VALLEY.
IRONING AND
KITCHEN-TABLES





118,991 WELCH AND WHEELER.
TABLES AND STANDS.

118,993 WILLIAM P.
WENTWORTH.
ROTARY ENGINES

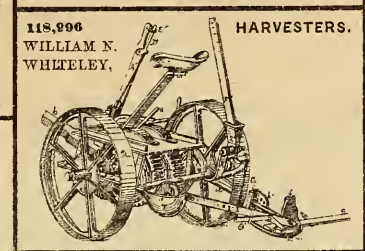


118,994
JULIUS WERNER.
SOFA-BEDS.

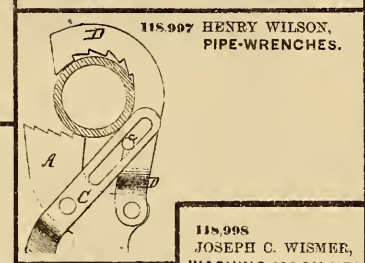
118,995

GEFERT H. WETJEN,
BOXES FOR SHOE
BLACKING.

118,996
WILLIAM N.
WHITELEY,
HARVESTERS.



118,997 HENRY WILSON,
PIPE-WRENCHES.



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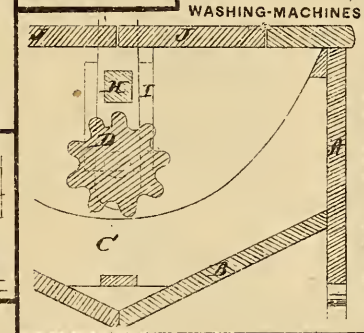
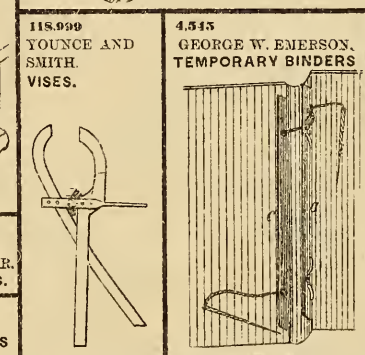
JOSEPH C. WISMER,
WASHING-MACHINES



118,999
YOUNCE AND
SMITH.
VISES.



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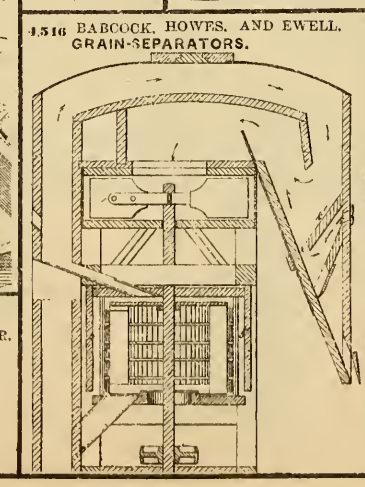
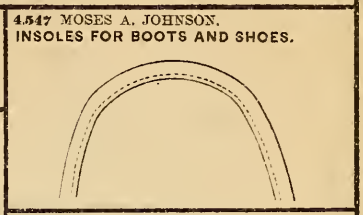
TEMPORARY BINDERS

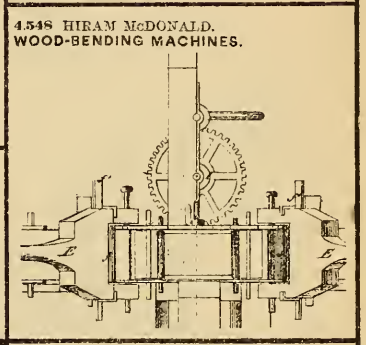
4,546 BABCOCK, HOWES, AND EWELL.
GRAIN-SEPARATORS.



4,547 MOSES A. JOHNSON.
INSOLES FOR BOOTS AND SHOES.



4,548 HIRAM McDONALD.
WOOD-BENDING MACHINES.



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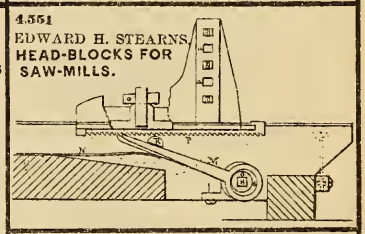
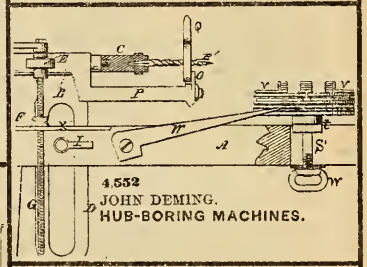
HEAD-BLOCKS FOR
SAW-MILLS.





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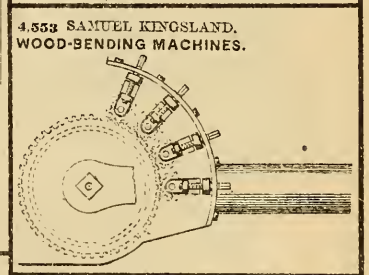
JOHN DEMING.
HUB-BORING MACHINES.

4,553 SAMUEL KINGSLAND.
WOOD-BENDING MACHINES.



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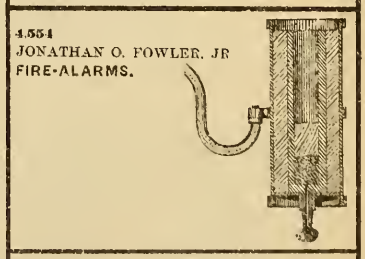
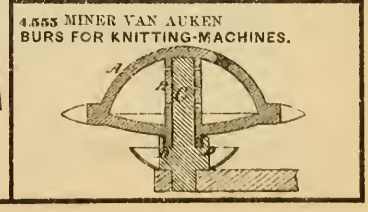
FIRE-ALARMS.



4,555 MINER VAN AUKEN
BURS FOR KNITTING-MACHINES.



ILLUSTRATIONS OF PATENTS
ISSUED FROM

THE UNITED STATES PATENT OFFICE

SEPTEMBER 19, 1871.

119,001
CHARLES N. ANDREWS,
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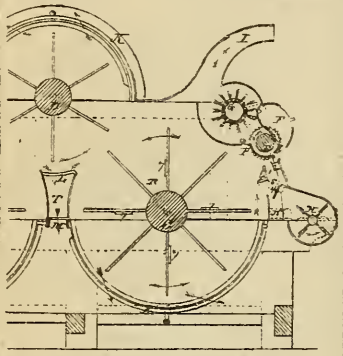

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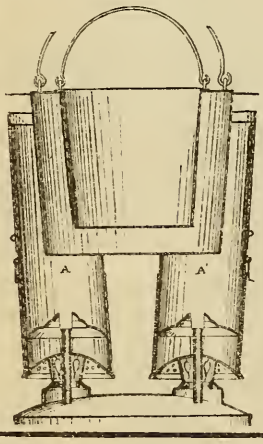
JOHN I. BARINGER, GLUE-POTS.



119,003
119,004
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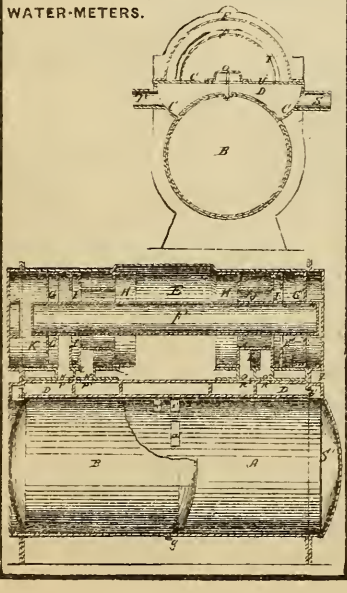
WATER-METERS.



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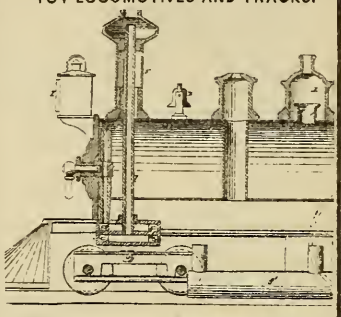
EUGENE BEGGS.
TOY-LOCOMOTIVES AND TRACKS.



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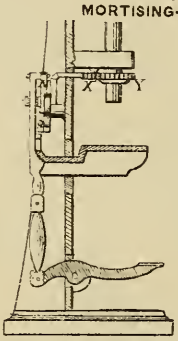
HENRY BICKFORD.
MORTISING-MACHINES.



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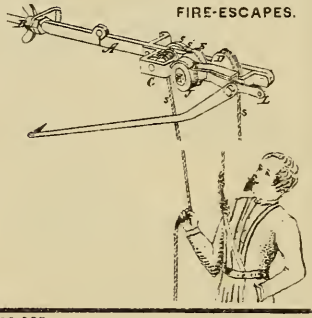
BISHOP AND SMITH.
FIRE-ESCAPES.



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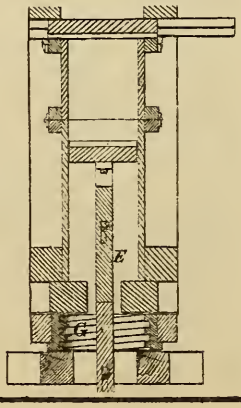
GEORGE BRODIE.
BALING-PRESSES.



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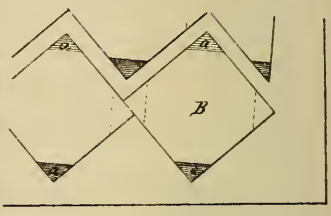
WOOD PAVEMENTS.



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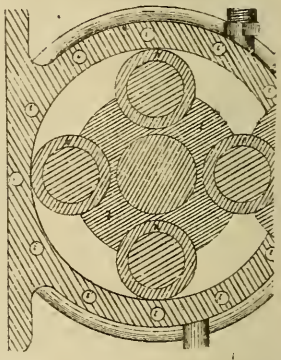
LUKE CHAPMAN.
ROTARY PUMPS.



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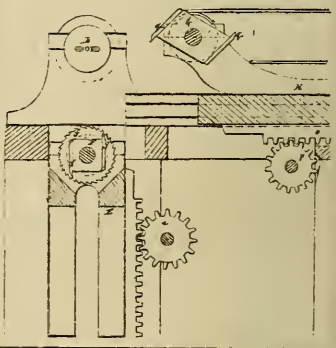
HILLRY CHAVONS.
LATHES.



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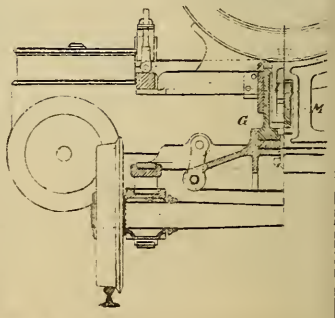
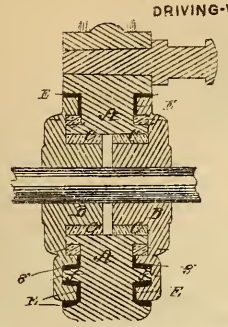
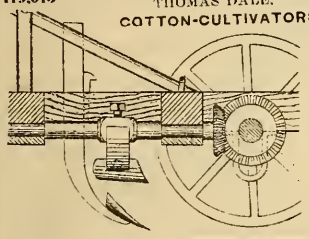
JOHN COOKE.
LOCOMOTIVES.



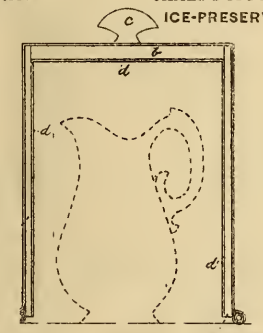
119,014 ALMOND F. COOPER. DRIVING-WHEELS



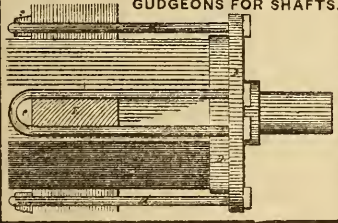
119,015 THOMAS DALE. COTTON-CULTIVATORS.



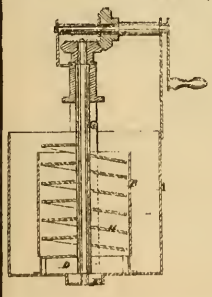
119,016 JAMES DUNNING. ICE-PRESERVERS.



119,017 WILLIAM W. EASTMAN. GUDGEONS FOR SHAFTS.



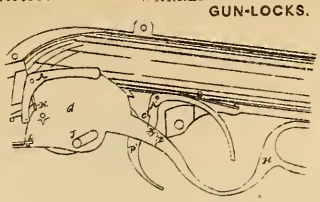
119,018 CHARLES ELLING. MACHINES FOR MIXING SOAP.



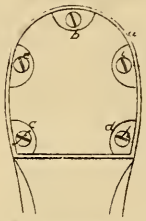
119,019

GEORGE F. EVANS. CLIPPING-SHEARS.

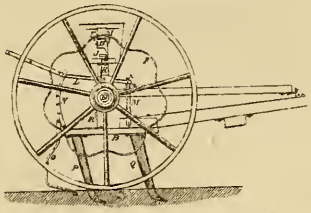
119,020 WARREN R. EVANS. GUN-LOCKS.



119,021 GEORGE F. FLING. BOOT AND SHOE-HEELS.

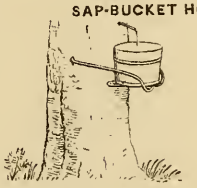


119,022 JOHN P. FLOOM. GRAIN-DRILLS.

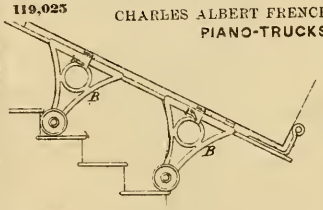


119,023 JOHN P. FLOOM. GRAIN-DRILLS.

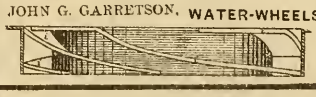
119,024 ALVIN FRANKLIN. SAP-BUCKET HOLDERS.



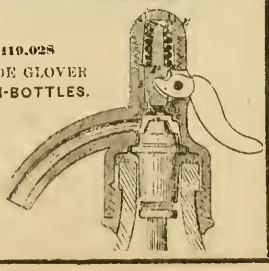
119,025 CHARLES ALBERT FRENCH. PIANO-TRUCKS.



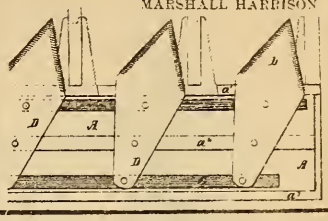
119,026 JOHN G. GARRETSON. WATER-WHEELS.



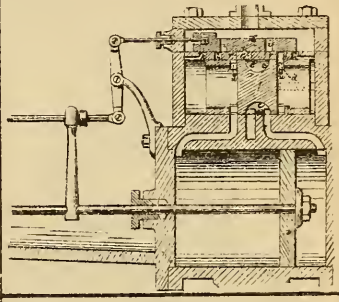
119,028 CLAUDE GLOVER SIPHON-BOTTLES.



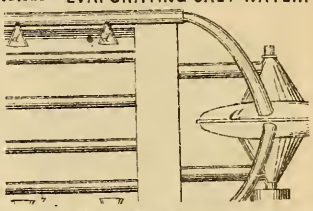
119,029 CUTTING APPARATUS MARSHALL HARRISON



119,030 JOSEPH W. HOPKINS. VALVES FOR STEAM-PUMPS, &c.

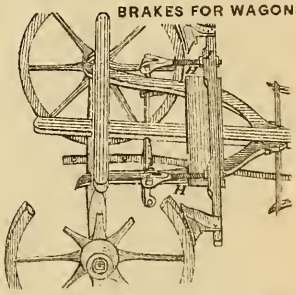


119,031 JAMES L. HUMPHREY. EVAPORATING SALT WATER.

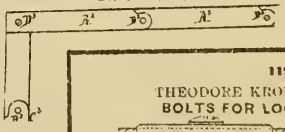


119,032 DANIEL HUSSEY. SPINDLES FOR SPINNING-MACHINES.

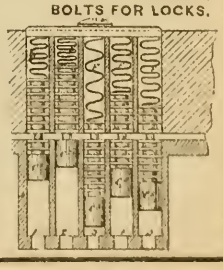
119,033 FRANCIS M. KELLEY. BRAKES FOR WAGONS.



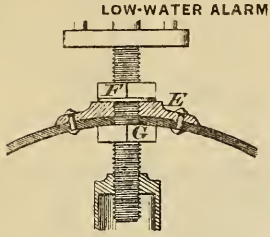
119,035 DANIEL M. KNOWLES. BINDINGS FOR OIL-CLOTHS.



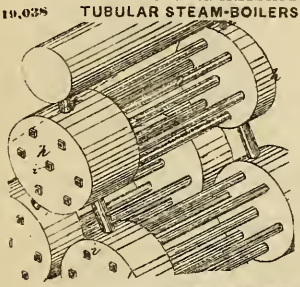
119,036 THEODORE KROMER. BOLTS FOR LOCKS.



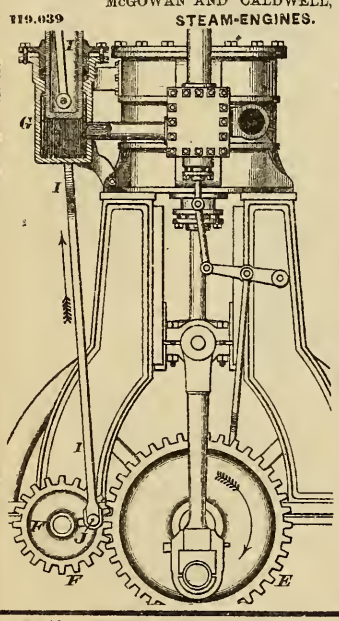
119,037 LEISTNER KAYSER. LOW-WATER ALARMS.



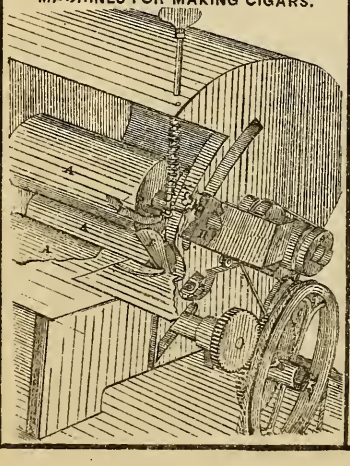
119,038 JAMES A. MAYNARD. TUBULAR STEAM-BOILERS.



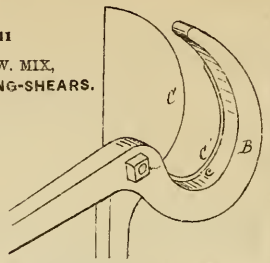
119,039 McGOWAN AND CALDWELL, STEAM-ENGINES.



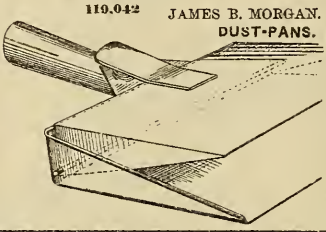
119,040 MARTIN V. McKINNEY, MACHINES FOR MAKING CIGARS.



119,041 JOHN W. MIX, PRUNING-SHEARS.

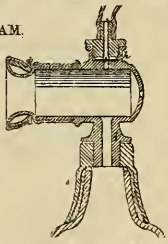


119,042 JAMES B. MORGAN. DUST-PANS.

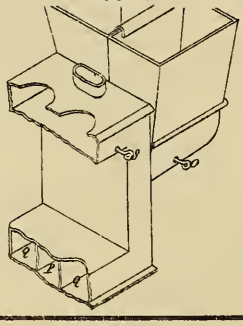


119,043 LIGHTNING-RODS. DAVID MUNSON,

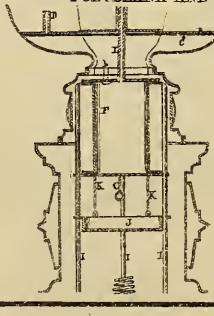
119,044 ORWELL H. NEEDHAM. BREAST-PUMPS



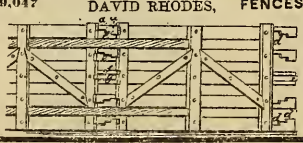
119,045 DANIEL ELDON PARIS. COOKING-STOVES.



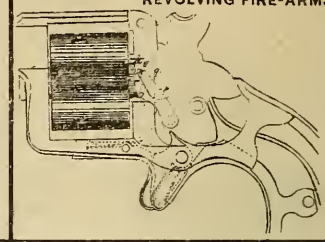
119,046 FOUNTAINS. POLYBLANK AND PARKIN.



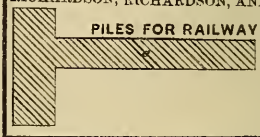
119,047 DAVID RHODES, FENCES.



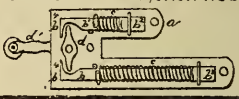
119,048 CHARLES B. RICHARDS. REVOLVING FIRE-ARMS.



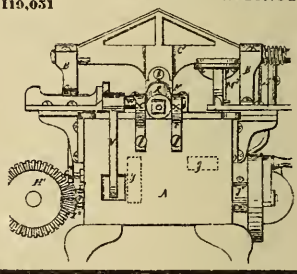
119,049 RICHARDSON, RICHARDSON, AND SPENCER PILES FOR RAILWAY RAILS.



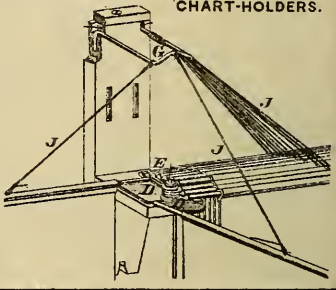
119,050 JAMES F. RICKEL, SASH-HOLDERS.



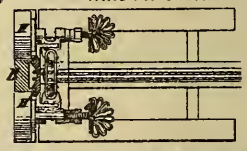
119,051 WEBSTER ROBERTS, MAKING HORSESHOES.



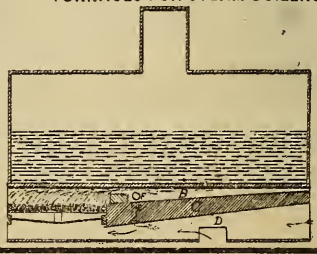
119,054 DANIEL SHRYOCK, CHART-HOLDERS.



119,055 GEORGE SMEATON, WINDOW-CLEANERS.



119,056 CHARLES D. SMITH, FURNACES FOR STEAM-BOILERS.



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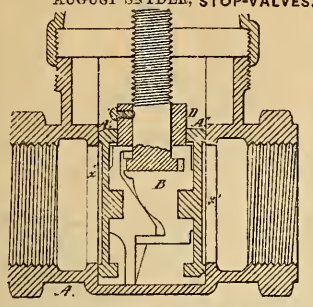
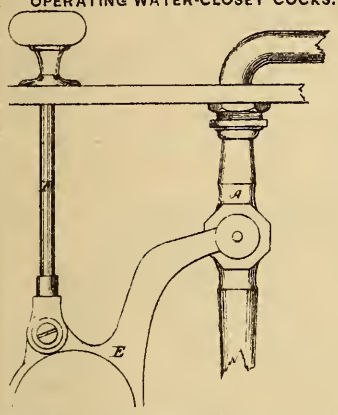
AUGUST SNYDER, STOP-VALVES.



119,058
BENNETT P. SPEAR.
OPERATING WATER-CLOSET COCKS.



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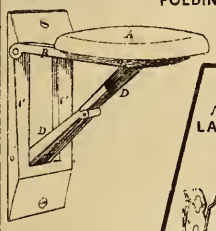
JAMES M. SWAIN, FOLDING-SEATS.



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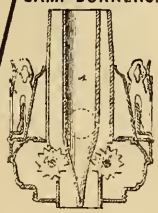
ALVIN TAPLIN.
LAMP-BURNERS.



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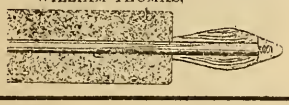
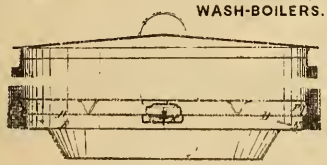
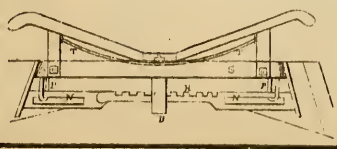
WILLIAM THOMAS, ROLLING-PINS.



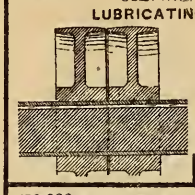
119,063
JOSEPH C. TILTON,
WASH-BOILERS.



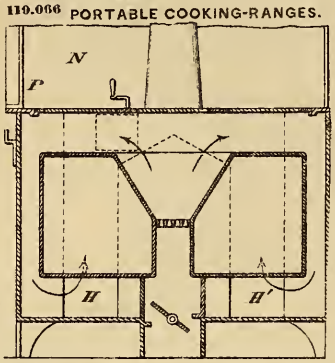
119,064
MACHINES FOR GRADING
GEORGE TRUMP.



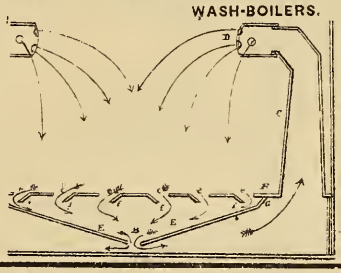
119,065
STEPHEN USTICK.
LUBRICATING LOOSE PULLEYS



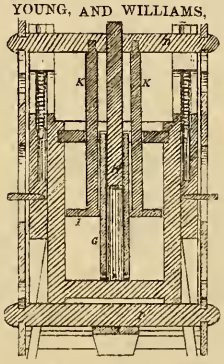
119,066
JOHN VAN,
PORTABLE COOKING-RANGES.



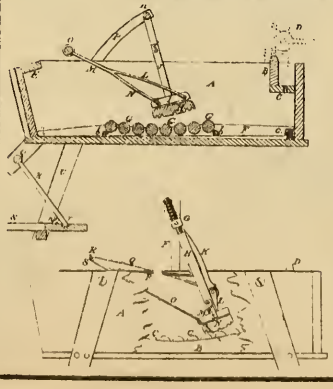
119,067
WEIDLEY AND WEIDLEY.
WASH-BOILERS.



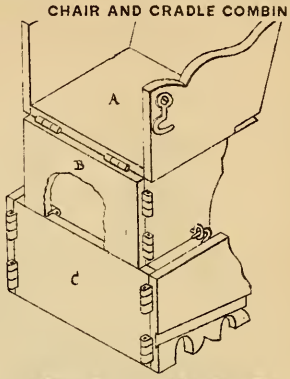
119,068
YOUNG, AND WILLIAMS,
CHURNS.



119,069
119,070
YOUNG AND DOLL.
WASHING-MACHINES.



119,071
ABRAHAM ABRAHAMS.
CHAIR AND CRADLE COMBINED.



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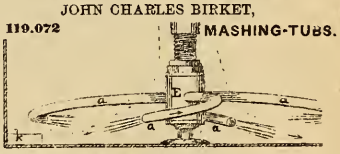
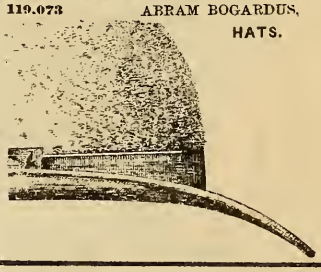
JOHN CHARLES BIRKET,
MASHING-TUBS.



119,073
ABRAM BOGARDUS,
HATS.



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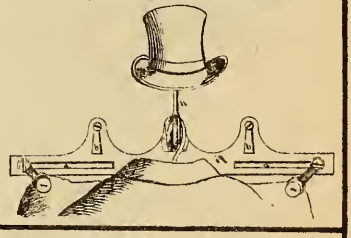
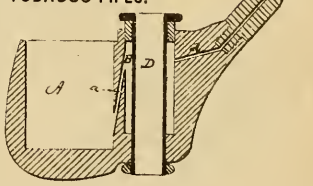
JOSEPH P. BUCKINGHAM,
PORTABLE WARDROBES.



119,075
THEODORE BURNHAM,
TOBACCO-PIPES.



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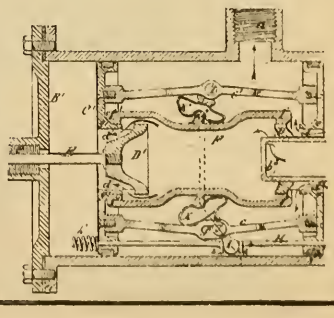
HENRY CHANDLER,
LIQUID-METERS.



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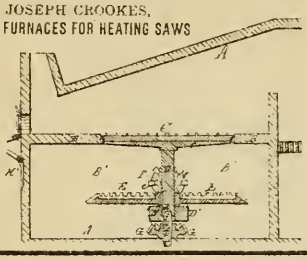
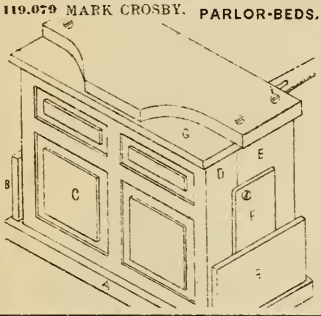
JOSEPH CROOKES,
FURNACES FOR HEATING SAWS

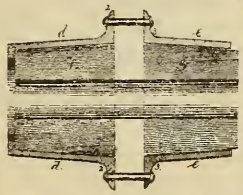


119,079 MARK CROSBY. PARLOR-BEDS.

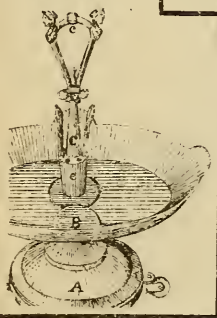


119,081
SHARRON P. DOANE,
NOZZLES FOR OIL-CANS.

119,082
DRAPER AND DANISON,
CARRIAGE-WHEELS.



119,086
JOHN GIBSON, JR.,
TABLE-BASKETS



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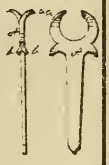
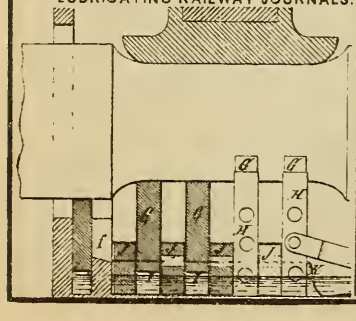
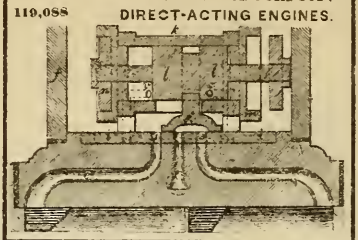
WILLIAM H. EMORY,
DISH-WASHERS.



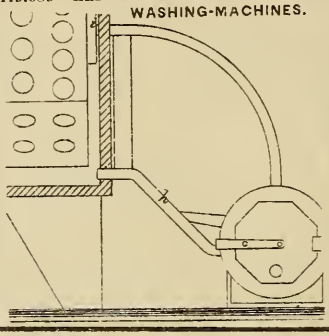
119,087 CHARLES W. HARVEY.
LUBRICATING RAILWAY JOURNALS.



BRADBURY M. JOHNSON,
119,088 DIRECT-ACTING ENGINES.



119,089 HENRY ELFORD LEA.
WASHING-MACHINES.



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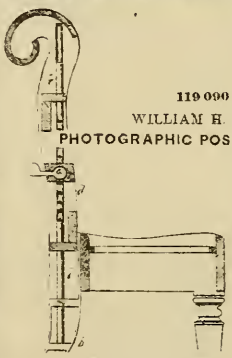
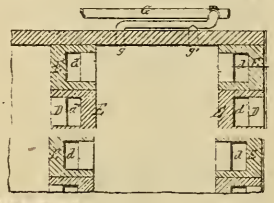
WILLIAM H. LEWIS,
PHOTOGRAPHIC POSING-CHAIRS.



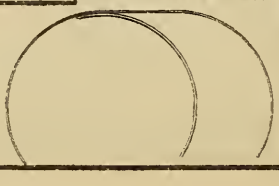
THEODORE G. MEIER.
119,092 COKE-OVENS.



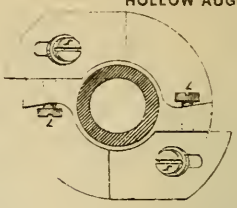
119,093 EDWIN W. NEWTON.
SUBMARINE TELEGRAPH-CABLES.

119,094
DANIEL BOONE RICKEY.
BUNGS AND BUNG-INSERTERS.

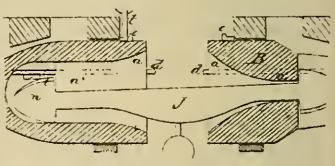
119,095
EARLE H. SMITH.
FUR-SET BOXES.



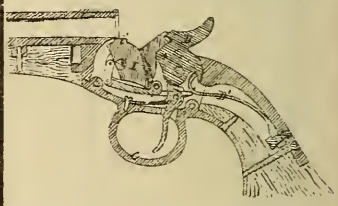
119,096
JAMES SWAN.
HOLLOW AUGERS.



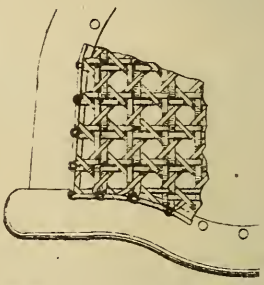
119,097 TIMMS AND BROWN,
CAR-COUPLINGS.



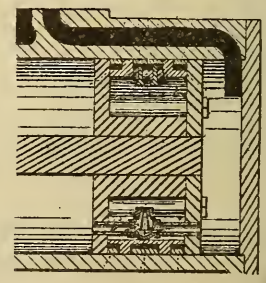
119,098 HORACE UPDEGRAFF,
BREECH-LOADING FIRE-ARMS.



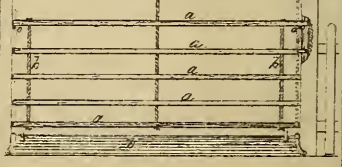
119,099 GARDNER A. WATKINS,
PREPARING RATTAN



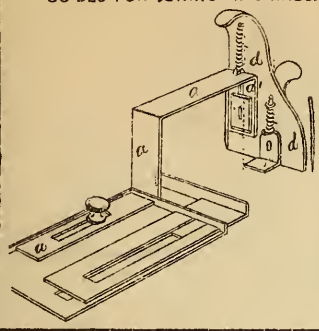
119,100 S. LLOYD WEIGAND,
PISTON-PACKINGS.



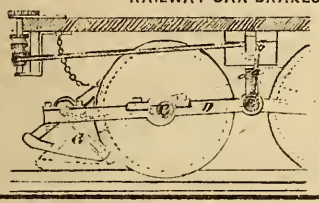
119,101
GATES. SEYMOUR G. WOOD,



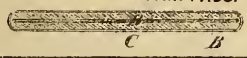
CHARLES ARMSTRONG.
119,102
GUIDES FOR SEWING-MACHINES.



ARNDT AND WASHINGTON,
119,103
RAILWAY-CAR BRAKES.

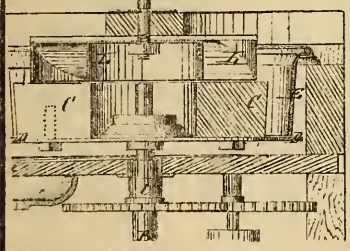


EDWARD H. BAILEY,
119,105
STAIR-PADS.



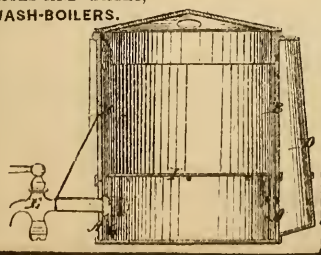
119,106
JOHN BALL, SR.,
IRON RUNNING-GEAR FOR WAGONS.

BENJAMIN F. BARKER,
119,107
MACHINES FOR PULPING WOOD

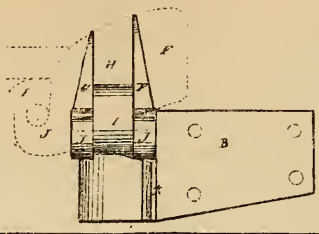


119,108
JOSEPH F. BARKER,
HARVESTER-CUTTER GRINDERS.

119,109
BATES AND BATES,
WASH-BOILERS.



119,110
GATES.
JULIUS S. BENEDICT.



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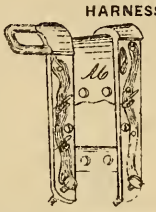
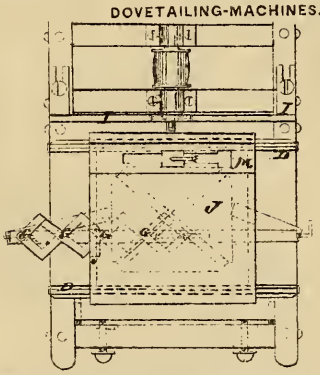
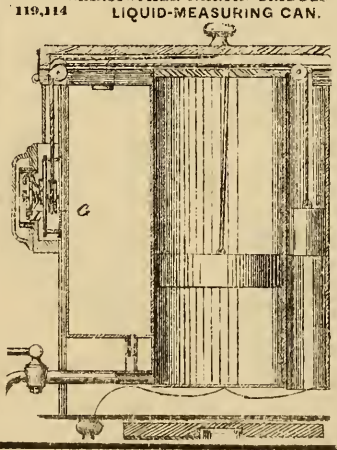
VALENTINE BORST,
HARNESS-SADDLES.



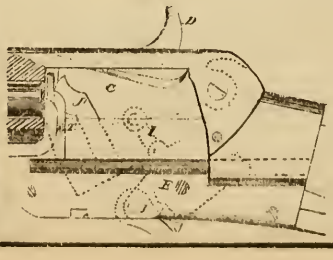
119,113
BRANCH, HASELTINE, AND BRANCH.
DOVETAILING-MACHINES.



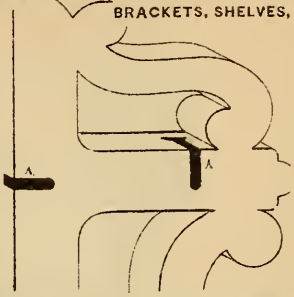
CHRISTOPHER MARTIN BRIDGES
119,114
LIQUID-MEASURING CAN.



119,115
ANDREW BURGESS,
MAGAZINE FIRE-ARMS.

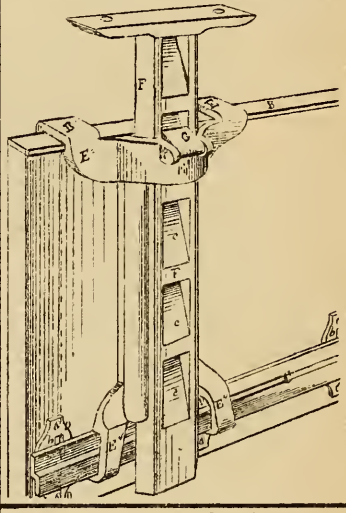


119,116
NAROY G. BURLEIGH,
BRACKETS, SHELVES, &c.

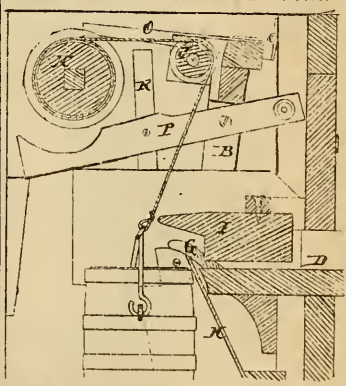


119,117
FRANK BUSH,
COUPLING-HOOKS FOR COAL-CARS.

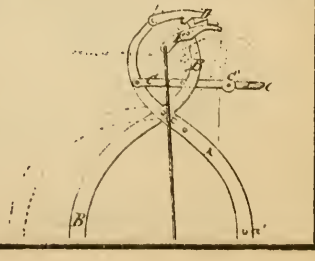
119,118
WILLIAM CAMPBELL,
WAGON-SEAT STANDARDS



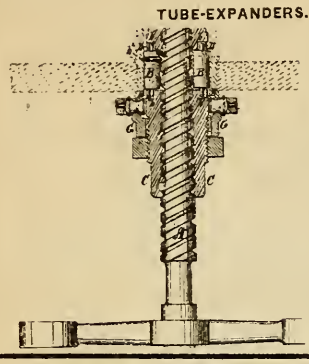
119,119
JAMES CURTS.
WATER-ELEVATORS.



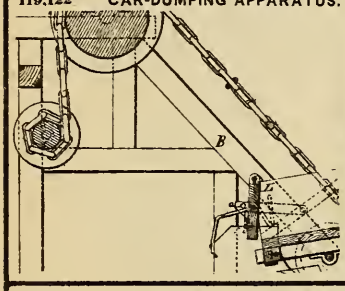
119,120
JACOB H. CAROTHERS,
HORSE HAY-FORKS.



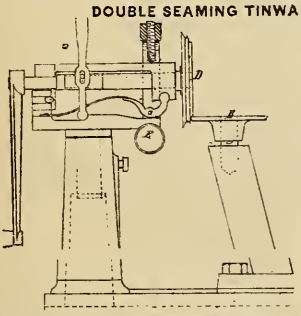
119,121 CHARLES H. CLARK. TUBE-EXPANDERS.



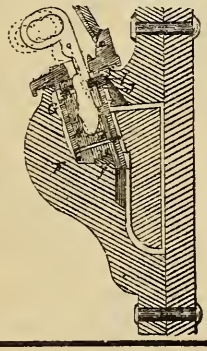
119,122 EZRA COCKILL. CAR-DUMPING APPARATUS.



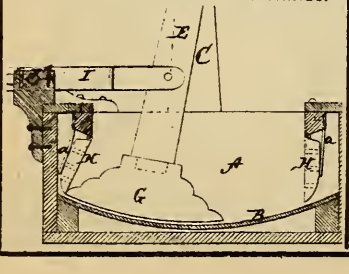
119,123 COHEN AND EDMONDS. DOUBLE SEAMING TINWARE.



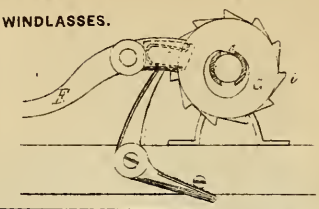
119,124 ALONZO W. CRAM. RAILWAY-SWITCH STANDS



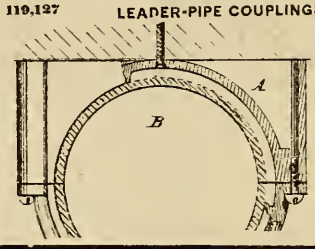
119,125 NATHANIEL CROCKETT, WASHING-MACHINES.



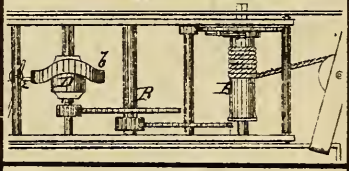
119,126 WILLIAM P. DAVIS. WINDLASSES.



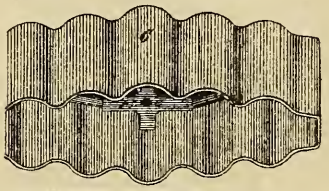
119,127 JOHN DEMAREST, LEADER-PIPE COUPLINGS.



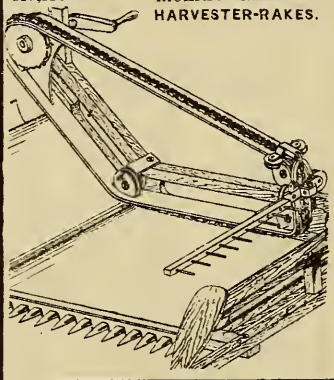
119,128 WILLIAM H. DOWNS, BED AND TABLE-FANS.



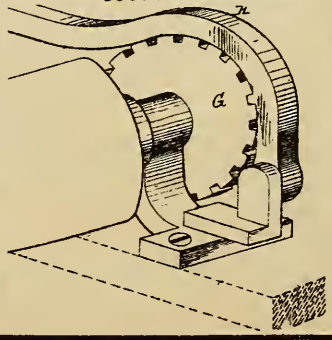
119,129 GEORGE ELLIOT. RAILWAY-CAR SPRINGS.



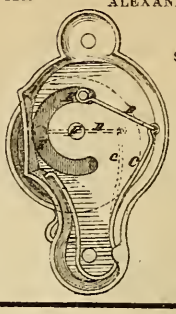
119,130 RICHARD EMERSON. HARVESTER-RAKES.



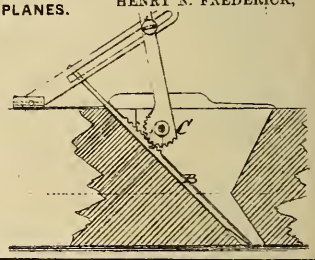
119,131 THOMAS R. EVANS, BOOT AND SHOE-TREES.



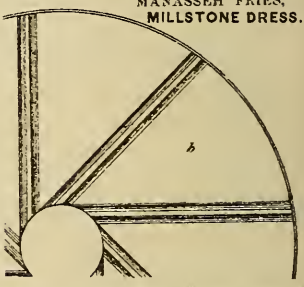
119,132 ALEXANDER C. FAIVRE. SASH-HOLDERS.



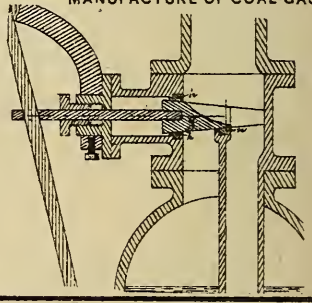
119,133 HENRY N. FREDERICK, PLANES.



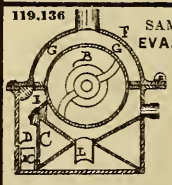
119,134 MANASSEH FRIES, MILLSTONE DRESS.



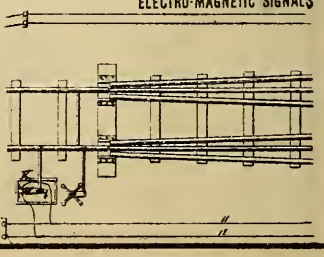
119,135 WILLIAM GIBSON. MANUFACTURE OF COAL-GAS.



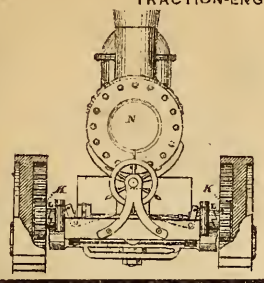
119,136 SAMUEL D. GILSON, EVAPORATING BRINE.



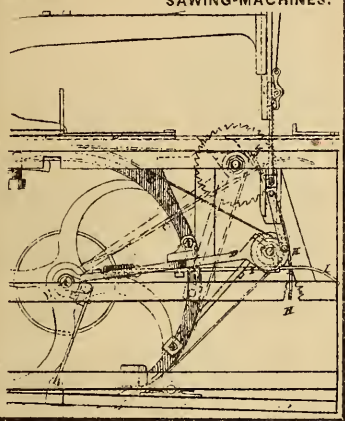
119,137 THOMAS S. HALL, ELECTRO-MAGNETIC SIGNALS



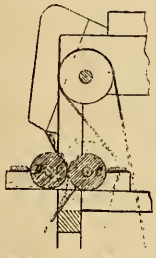
119,138 MELVIN A. HALSTED.
TRACTION-ENGINES.



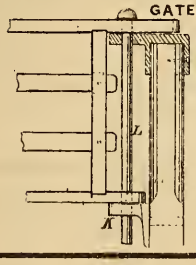
119,139 CHRISTIAN O. HANSEN,
SAWING-MACHINES.



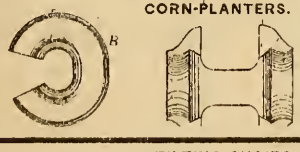
119,140 HIRAM P. HARRELL,
COTTON-GIN ATTACHMENTS.



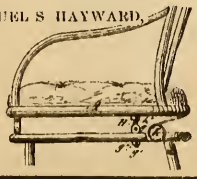
119,141 WILLIAM HATHAWAY.
GATES.



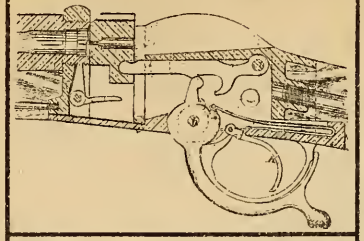
119,142 LYSANDER L. HAWORTH,
CORN-PLANTERS.



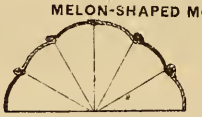
119,143 TILTING-CHAIRS.
SAMUEL S HAYWARD,



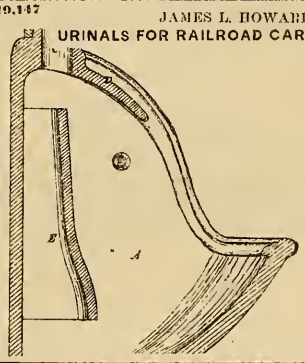
119,145 ALEXANDER HENRY.
BREECH-LOADING FIRE-ARMS.



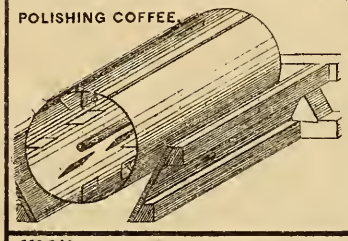
119,146 CHARLES HODGETTS.
MELON-SHAPED MOLDS.



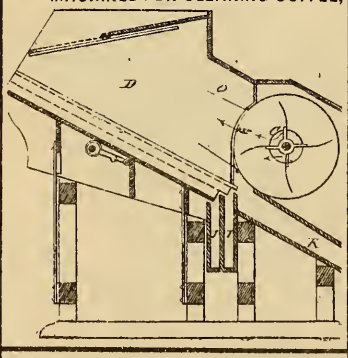
119,147 JAMES L. HOWARD.
URINALS FOR RAILROAD CARS.



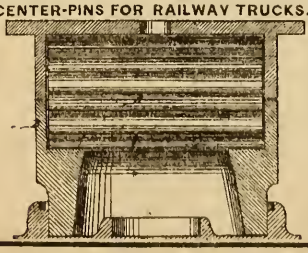
119,148 GEORGE WHITNEY HUNGERFORD.
POLISHING COFFEE.



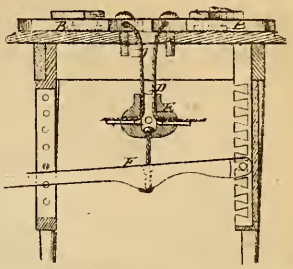
119,149 GEORGE WHITNEY HUNGERFORD.
MACHINES FOR CLEANING COFFEE,



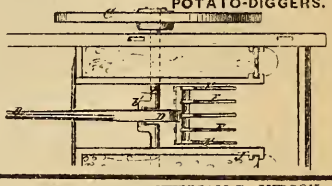
119,150 ROBERT B. JEWELL.
CENTER-PINS FOR RAILWAY TRUCKS.



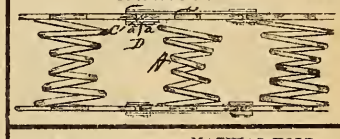
119,151 LEONARD A. JOHNSON
CLAMPS FOR MAKING PICTURE-FRAMES



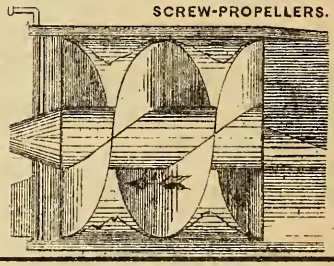
119,152 FRANKLIN JONES.
POTATO-DIGGERS.



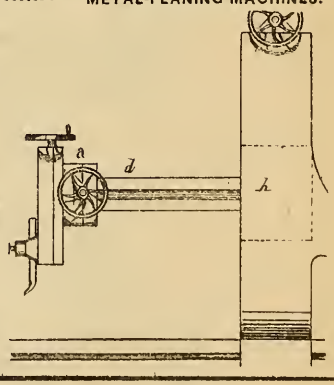
119,153 WILLIAM B. JUDSON.
SPRINGS FOR MATTRESSES,



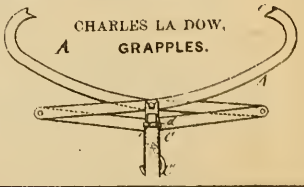
119,155 MATHIAS KOLB.
SCREW-PROPELLERS.



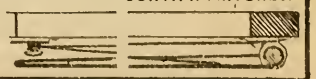
119,156 MARTIN KREMSER.
METAL-PLANING MACHINES.



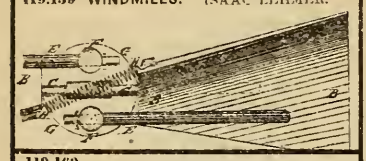
119,157 CHARLES LA DOW,
A GRAPPLES.



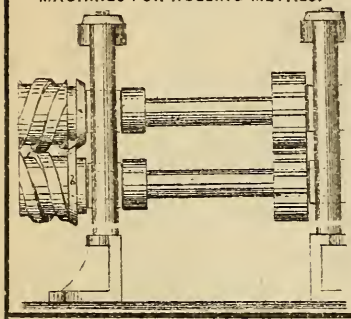
119,158 JOSHUA D. LEGG
CURTAIN-FIXTURES.



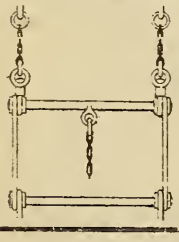
119,159 WINDMILLS. ISAAC LEHMER.



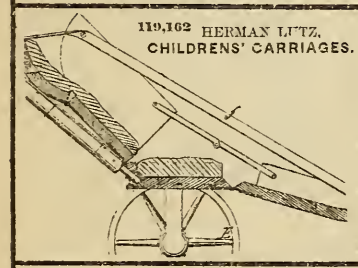
119,160 ABRAHAM LISMANN, MACHINES FOR ROLLING METALS.



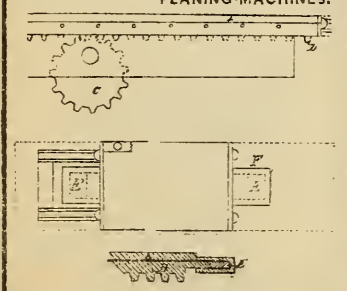
119,161 LUCKENBACH AND LUCKENBACH FIRE-ESCAPE LADDERS.



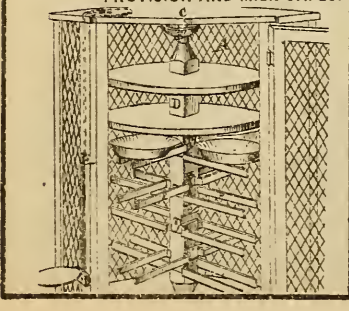
119,162 HERMAN LUTZ, CHILDRENS' CARRIAGES.



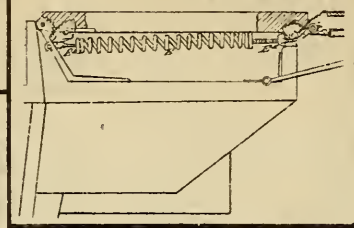
119,163 GEORGE H. MANSFIELD. PLANING-MACHINES.



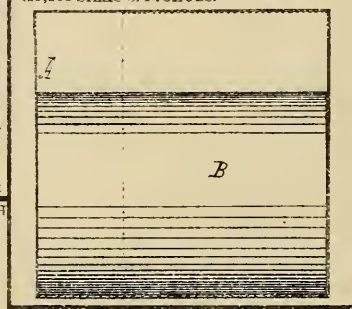
119,165 BENJAMIN H. MARTIN. PROVISION AND MILK-SAFES.



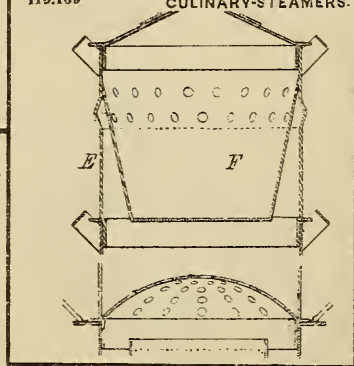
119,166 ALEXANDER McKENZIE. CARRIAGE-TOPS.



119,168 SILAS C. NICHOLS. FUR-BOXES.

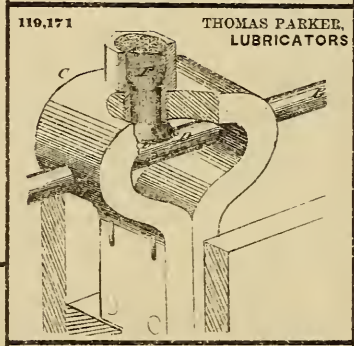


119,169 JOHN S. OGDEN. CULINARY-STEAMERS.

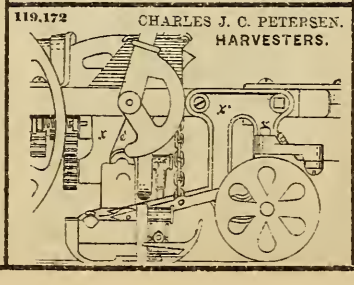


119,170 WILLIAM JAMES OXER, HARVESTER-CUTTERS.

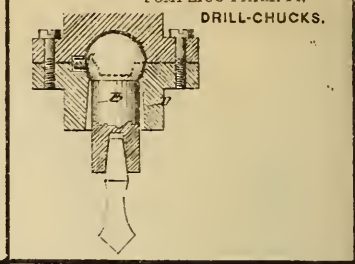
119,171 THOMAS PARKER, LUBRICATORS



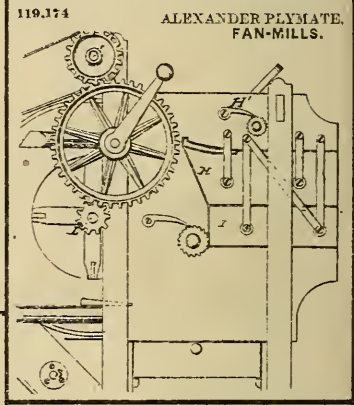
119,172 CHARLES J. C. PETERSEN. HARVESTERS.



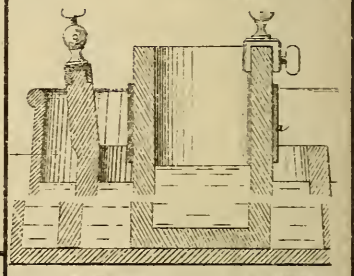
119,173 POMPEIUS PHILIPPI. DRILL-CHUCKS.



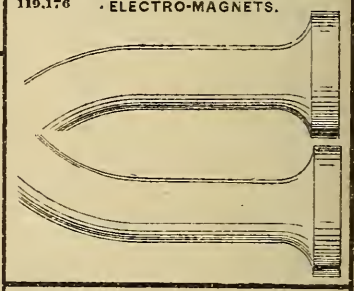
119,174 ALEXANDER PLYMATE. FAN-MILLS.



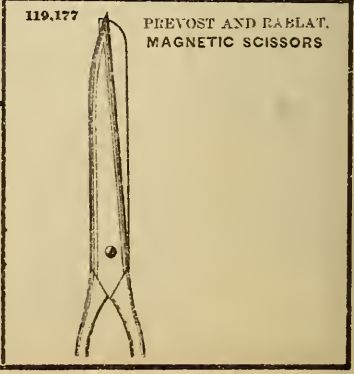
119,175 EMILE PREVOST, GALVANIC BATTERIES.



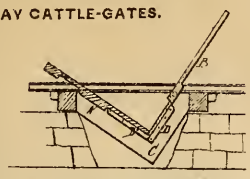
119,176 EMILE PREVOST. ELECTRO-MAGNETS.



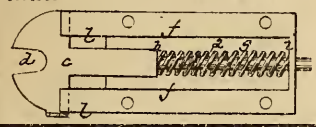
119,177 PREVOST AND RABLAT. MAGNETIC SCISSORS



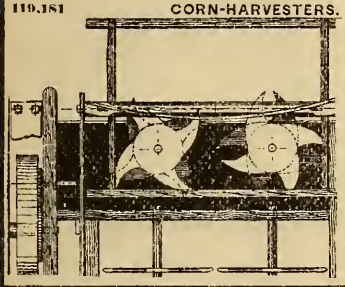
119,178 PUGH AND BIGGER,
RAILWAY CATTLE-GATES.



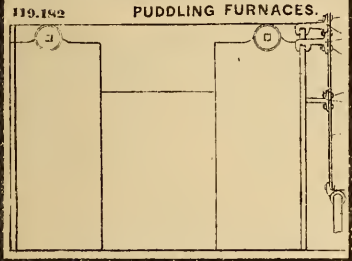
119,180 REED AND GRUNDY.
SHUTTER-FASTENERS.



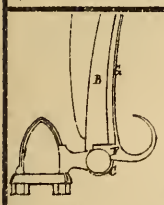
119,181 ALBERT F. ROBERTS
CORN-HARVESTERS.



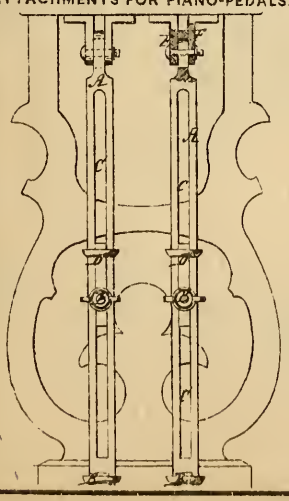
119,182 ANTHONY POLLOK,
PUDDLING FURNACES.



119,183 TRUMAN H. RYDER,
THILL-COUPLINGS.

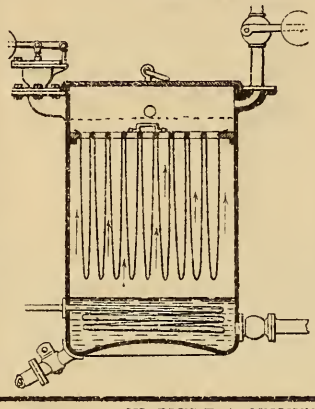


119,184 SIGMUND SCHOENBRUN.
ATTACHMENTS FOR PIANO-PEDALS.

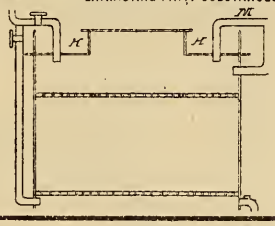


119,185 WILLIAM C. SELDEN.
FEED-WATER APPARATUS

119,187 CHARLES F. A. SIMONIN.
TREATING TEXTILE FABRICS

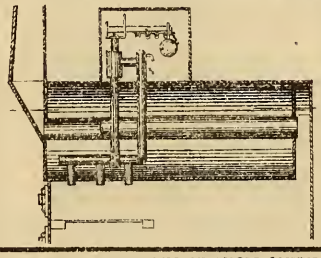


119,188 CHARLES F. A. SIMONIN,
EXTRACTING FATTY SUBSTANCES.

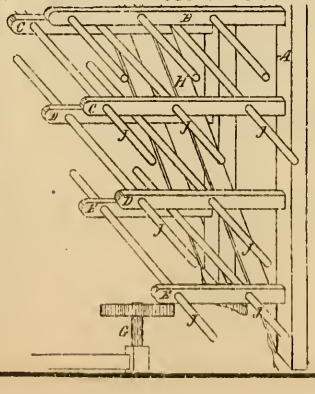


119,189 JOHN Q. SIMONSON,
FILTERING-CISTERNS.

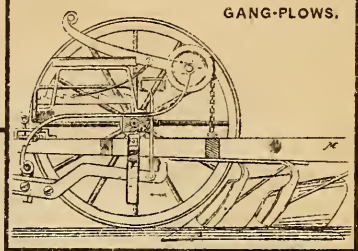
119,190 THOMAS R. SINCLAIRE.
BOILER FIRE EXTINGUISHERS.



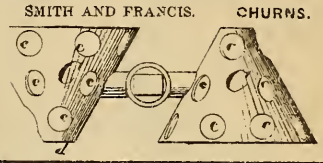
119,191 CHARLES FRANCIS SMITH,
CLOTHES-DRIERS.



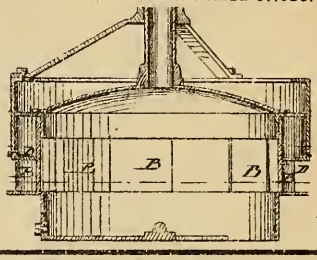
119,192 HOELL B. SMITH.
GANG-PLOWS.



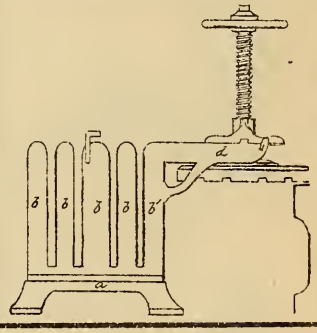
119,193 SMITH AND FRANCIS. CHURNS.



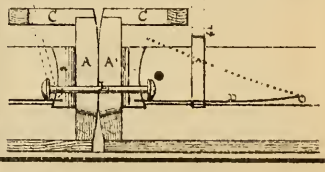
119,194 WILLIAM H. SNYDER.
WATER-WHEEL CASES.



119,195 THOMAS STIBBS,
PRESSES FOR PRESSING YARN,

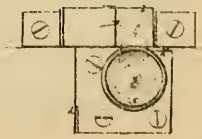


119,196 JAMES TEMPLE,
RAILWAY-CAR COUPLINGS.



119,197 HIRAM HOWARD THAYER.
NECKTIE-HOLDERS.

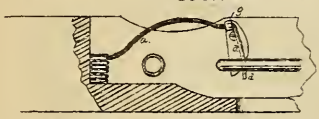
119,198 NATHAN THOMPSON,
FASTENERS FOR SASHES.



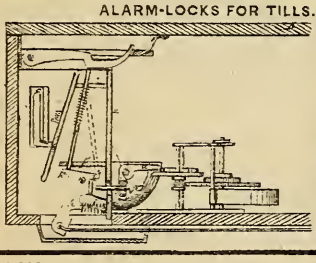
119,199 NATHAN THOMPSON.
CASINGS FOR WINDOW-PULLEYS.

119,200 GEORGE W. TINSLEY.
WEATHER-BOARD GAUGES.

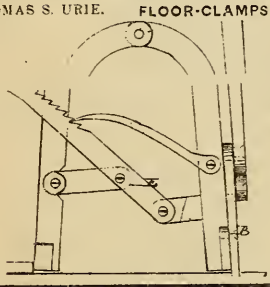
119,201 FREDERICK O. TUCKER.
LOOM-SHUTTLES.



119,202 WILLIAM H TUCKER.
ALARM-LOCKS FOR TILLS.

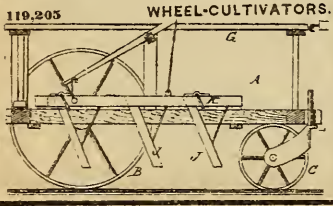


119,203 THOMAS S. URIE. FLOOR-CLAMPS.

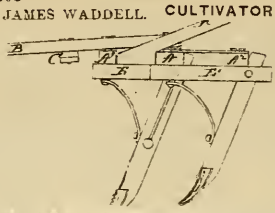


119,204 JOHN P. VAN BRAMER.
FORMING WIRE BAILS.

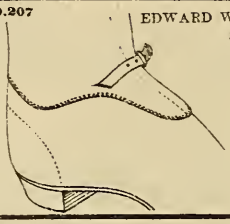
119,205 JOHN A. VIARS.
WHEEL-CULTIVATORS.



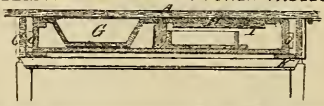
119,206 JAMES WADDELL. CULTIVATORS.



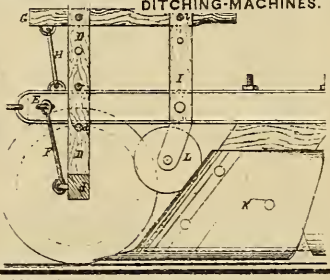
119,207 EDWARD WALCOTT.
SHOES.



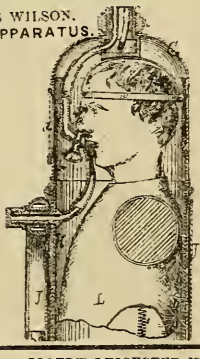
119,208 BERNHARD WELTECK. KITCHEN-TABLES.



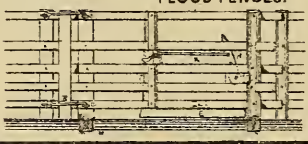
119,209 DAVID WHITESELL.
DITCHING-MACHINES.



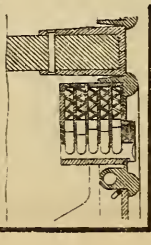
119,210 CHARLES WILSON.
DIVING APPARATUS.



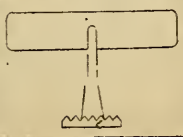
119,211 JOSEPH LEICESTER WINES.
FLOOD-FENCES.



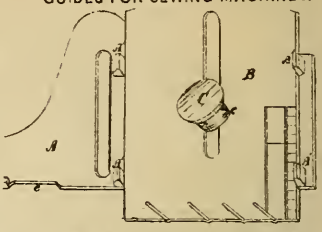
119,212 SILAS N. BROOKS.
POST-OFFICE LETTER-BOXES.



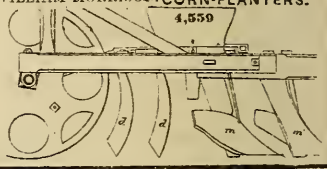
119,213 RICHARD T YARDLEY.
BALE-HOOKS.



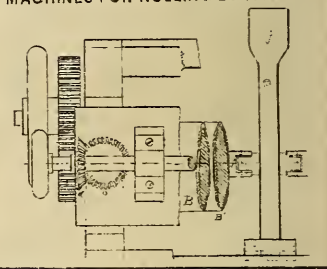
4,556 JACOB S. ALTER.
GUIDES FOR SEWING-MACHINES.



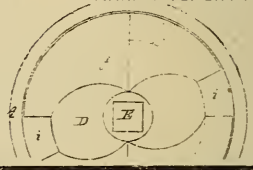
WILLIAM MORRISON. CORN-PLANTERS.
4,559



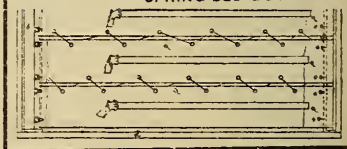
4,562 JOEL WHITNEY
MACHINES FOR ROLLING LEATHER



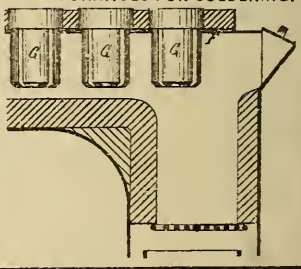
4,563 BAKER, KNIGHT, AND DAYTON.
MAKING CEMENT PIPES.



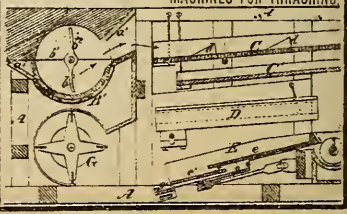
4,564 HENRI E. BISSELL.
SPRING-BED BOTTOMS



4,565 LEWIS CUTTING.
FURNACES FOR SOLDERING.



4,566 MARTIN H. MANSFIELD.
MACHINES FOR THRASHING.



ILLUSTRATIONS OF PATENTS

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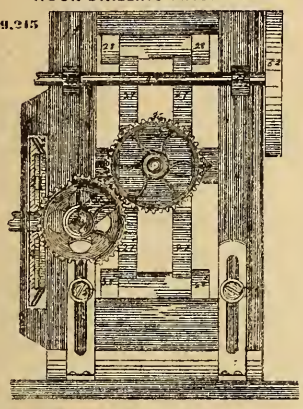
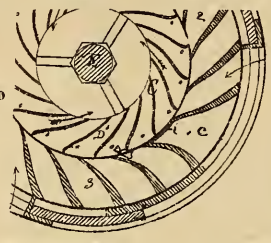
SEPTEMBER 26, 1871.

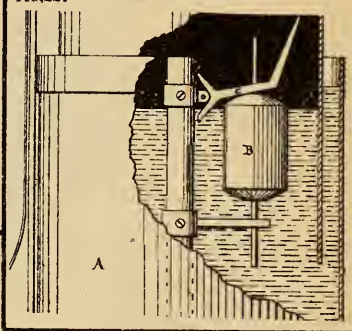
CLEOPHAS BERNARD.
ROCK-DRILLING MACHINES.
119,215



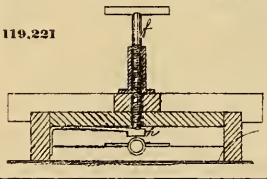
JOEL T. CASE. WATER-WHEELS.
119,220



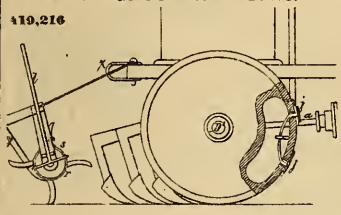
THOMAS B. FOGARTY,
GAS-MACHINES.
119,227



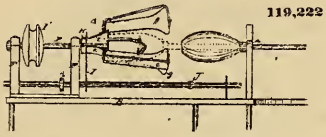
RETURN J. CHENEY, HORSE-POWERS.
119,221



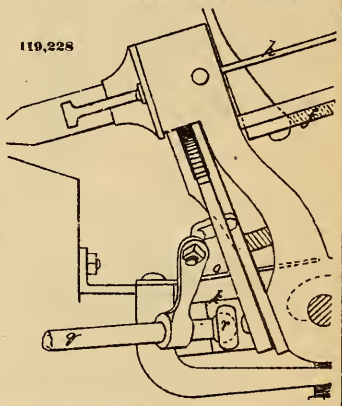
WILLIAM C. BIBB,
STEAM-WAGONS AND PLOWS.
119,216



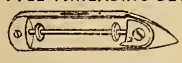
MICHAEL H. COLLINS,
FORMING GLASS CHIMNEYS
119,222



JOHN C. GOULD,
NAIL-PLATE-FEEDING MACHINES.
119,228

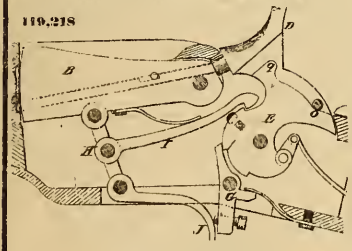


JOHN L. BORSCH,
SHUTTLE-THREADING DEVICES
119,217

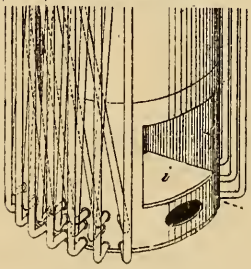


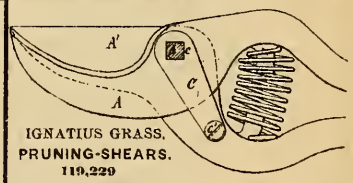
GEORGE CROUCH, SHAWL-STRAPS.
119,223

ANDREW BURGESS.
BREECH-LOADING FIRE-ARMS.
119,218



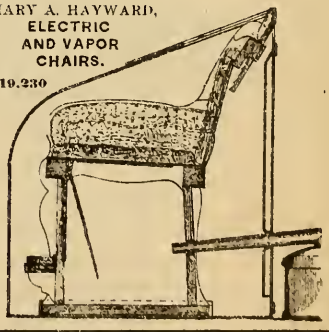
119,225 JONAS EBERHARDT.
STEAM-GENERATORS.



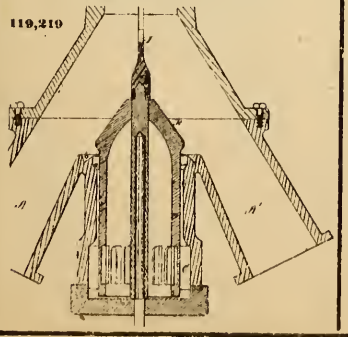


IGNATIUS GRASS,
PRUNING-SHEARS.
119,229

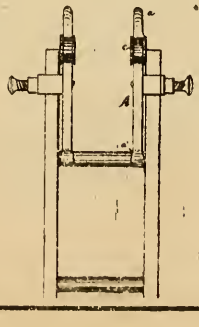
MARY A. HAYWARD,
ELECTRIC
AND VAPOR
CHAIRS.
119,230



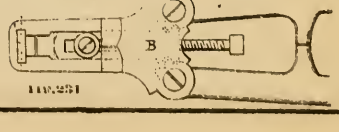
WILLIAM A. CARNS.
EXHAUST FOR LOCOMOTIVE
119,219



119,226 SILAS D. FISH. LADDER-HOOKS.



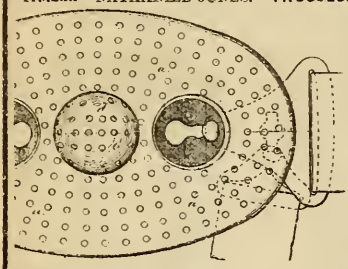
JESSE JOHNSON, BOLT-CUTTERS.



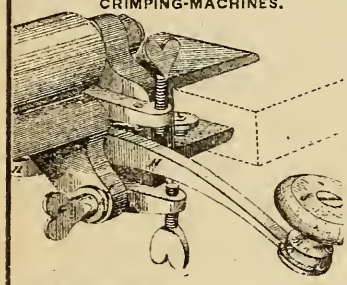
119,231

DANIEL JONES,
119,232 SUCKER-RODS.

119,233 NATHANIEL JONES. TRUSSES.

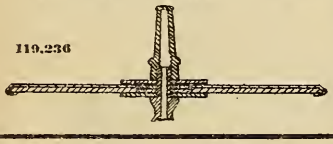


119,234 LEMMAN AND KIRK,
CRIMPING-MACHINES.

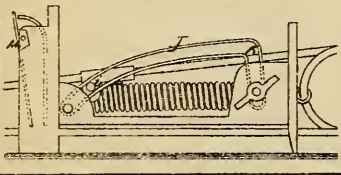


119,235 THOMAS E. McDONALD. SPINDLES

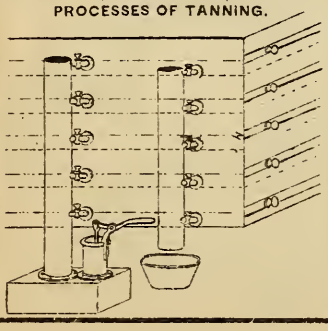
WILLIAM HARTLEY MILLER.
FENDERS FOR GAS-BRACKETS.
119,236



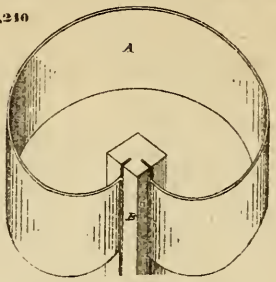
119,237 MOONEY AND LLOYD.
ANIMAL-TRAPS.



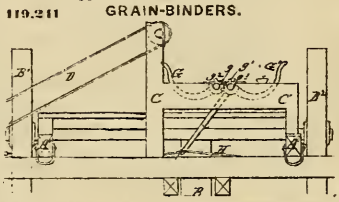
119,238 WILLIAM MORRIS,
PROCESSES OF TANNING.



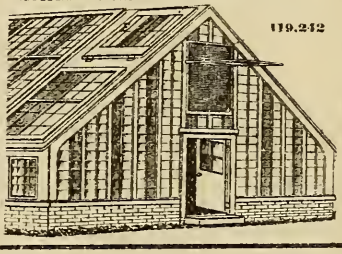
SAMUEL PATTERSON.
BENDING WOOD FOR ROUND BOXES.
119,240



ALEXANDER PHILIPPI.
119,241 GRAIN-BINDERS.



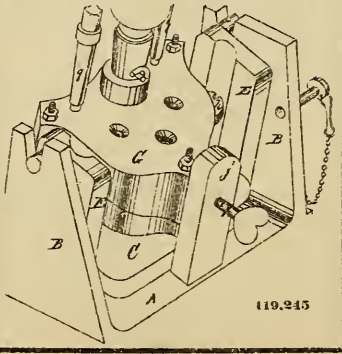
AUGUSTUS I. PLEASONTON.
ACCELERATING GROWTH OF PLANTS AND ANIMALS.
119,242



119,243 OLIVER SALGEE,
COUPLING-FAUCETS.

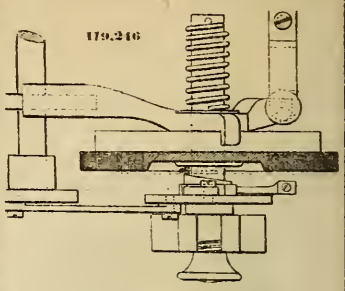
119,244 JOHN H. SCHMIDT.
WASHING-MACHINES.

FRANCIS M. SHIELDS,
MANUFACTURE OF DENTAL PLATES.

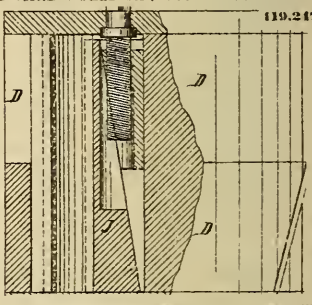


119,245

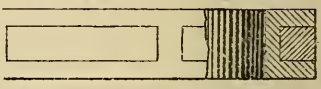
DAVID M. SMYTH. SEWING-MACHINES.
119,246



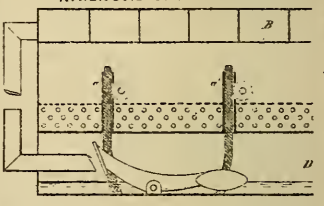
EDWARD SULLIVAN. PISTON-PACKINGS.
119,247



119,248 EDWARD SULLIVAN.
PISTON-PACKINGS.

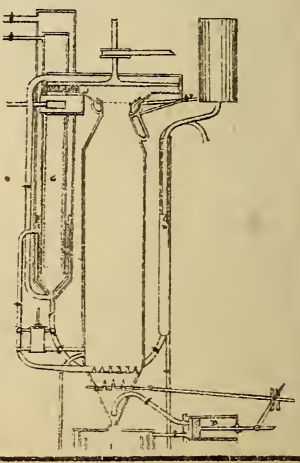


119,249 BENJAMIN D. THOMPSON.
RAILROAD CAR-HEATERS.

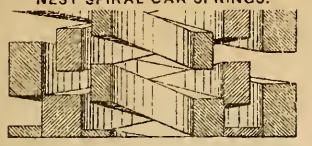


119,251 THOMAS TOUT, FISHING-RODS.

ALEXANDER C. TWINING.
119,252 MANUFACTURE OF SALT.



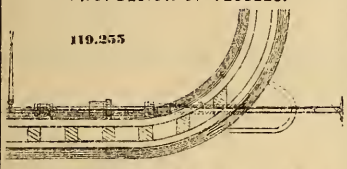
119,253 RICHARD VOSE.
NEST SPIRAL CAR-SPRINGS.

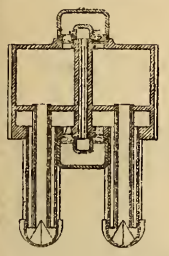


119,254, RICHARD VOSE,
NEST SPIRAL CAR-SPRINGS.

HENRY WATERMAN,
PROPULSION OF VESSELS.

119,255





119,256.

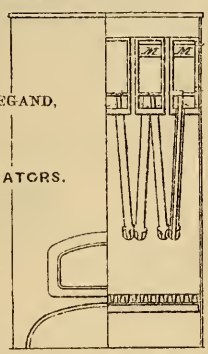
S. LLOYD WIEGAND.

RETURN-BENDS

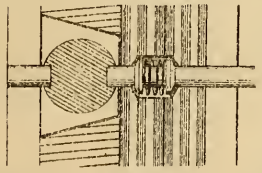
S. LLOYD WIEGAND,

STEAM-GENERATORS.

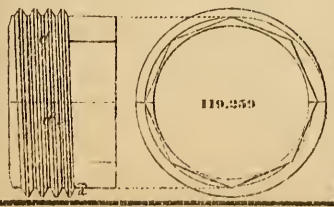
119,257



119,258 CHARLES O. YALE,
LOCK-SPINDLES FOR SAFES.



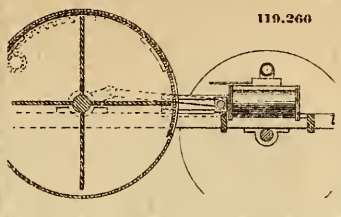
WILLIAM D. ALFORD, MOLDING PIPES.



119,259

JAMES N. BETHUNE, MOTIVE POWERS.

119,260



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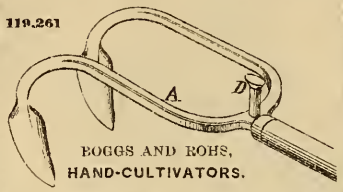
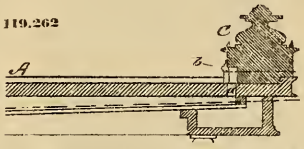


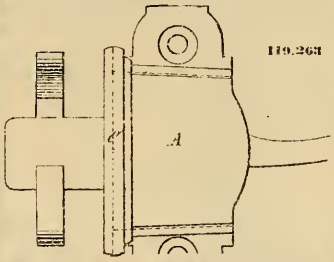
BOGGS AND BOHS,
HAND-CULTIVATORS.

EMANUEL BRUNSWICK, GAME-TABLES.

119,262

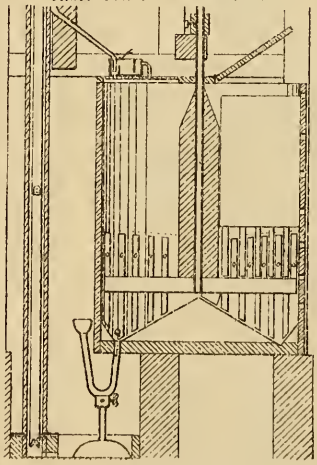


CHARLES B. CLARK.
LATCHES FOR GATES.

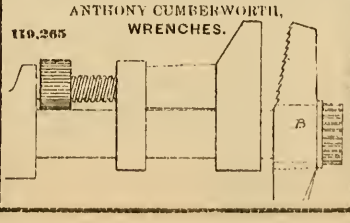


119,263

119,264 AUGUSTINE B. CROSBY,
AMALGAMATION OF GOLD

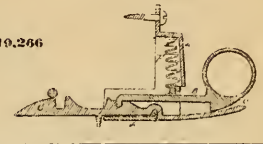


ANTHONY CUMBERWORTH,
119,265 WRENCHES.



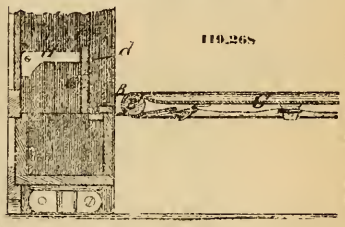
GILBERT K DEARBORN,
BLIND-FASTENERS.

119,266



GARDNER AND GARDNER,
WARDROBES AND BEDSTEADS.

119,268



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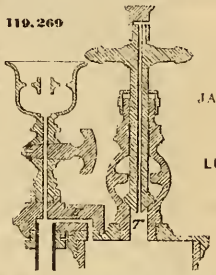
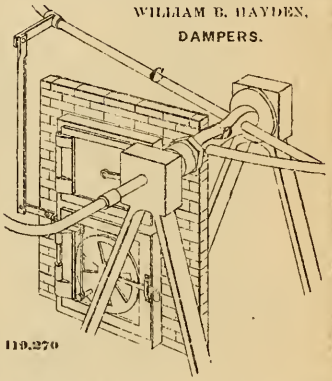


JAMES HARPER.

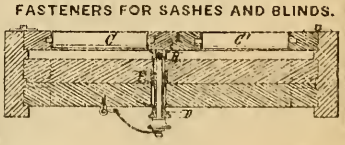
LUBRICATORS

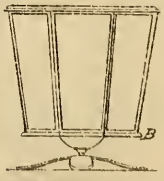
WILLIAM B. HAYDEN,
DAMPERS.



119,270

119,271 AUGUSTUS HAYE,
FASTENERS FOR SASHES AND BLINDS.



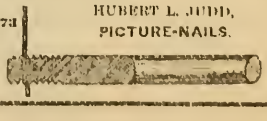


ALBERT D. JUDD.

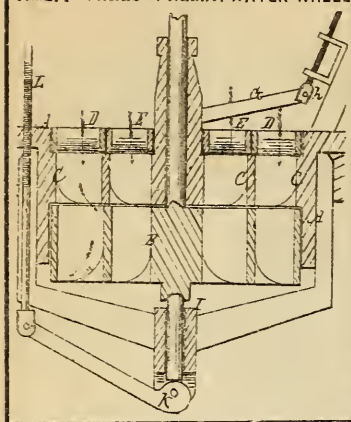
FLOWER-POTS.

119,272

119,273 HUBERT L. JUDD,
PICTURE-NAILS.

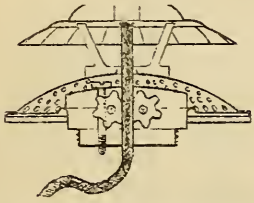


119,271 JAMES C. KELLY, WATER-WHEEL



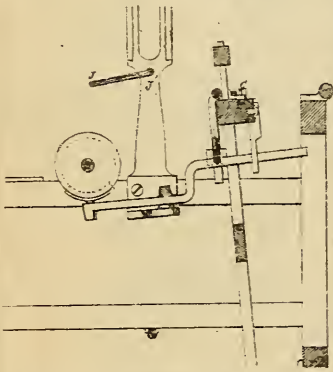
119,273 LEVI BENNETT LATHROP.

LAMP-WICK ADJUSTER



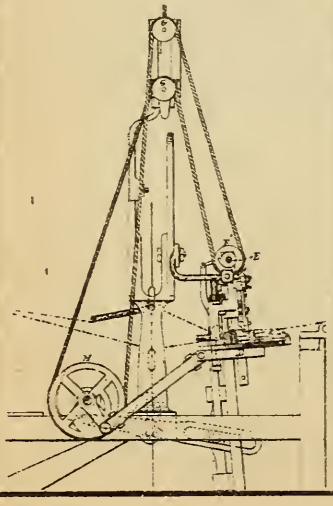
119,276 ISAAC LINDSLEY.

LOOMS FOR WEAVING HAIR-CLOTH



119,277 ISAAC LINDSLEY.

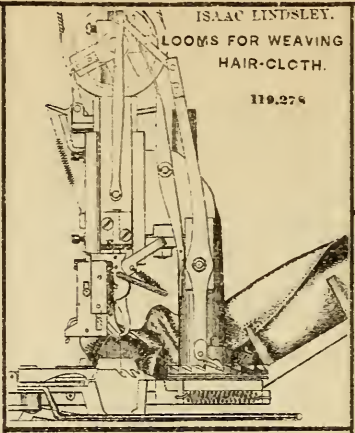
LOOMS FOR WEAVING HAIR-CLOTH.



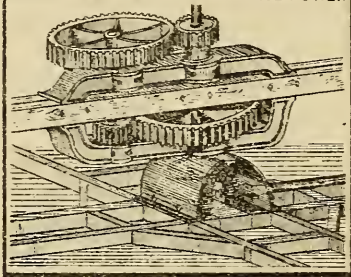
ISAAC LINDSLEY.

LOOMS FOR WEAVING HAIR-CLOTH.

119,278



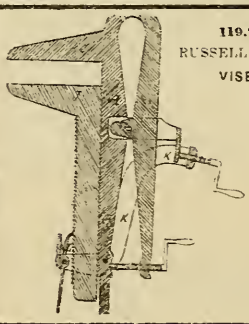
119,279 JAMES MARSHALL HORSE-POWER

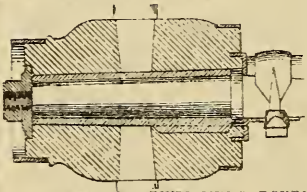


119,280

RUSSELL PHILLIPS.

VISES.



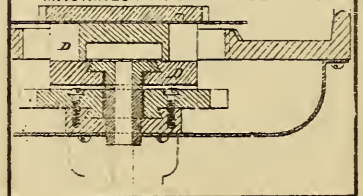


119,281 BENJAMIN F. ROBBINS.

AXLE-SHIELDS FOR CARRIAGES.

119,282 ANTON SAFFER.

MACHINES FOR STONE POLISHING.



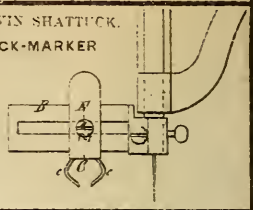
119,283

JACOB H. SAWYER.

SPINDLE-BEARINGS

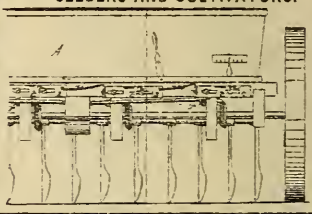
119,284 ALVIN SHATTUCK.

TUCK-MARKER



119,285 WILLIAM D. STROUD.

SEEDERS AND CULTIVATORS.

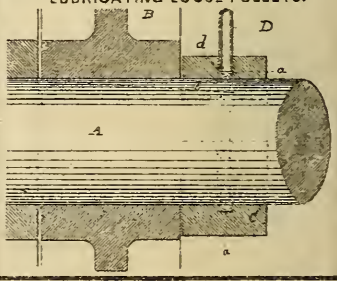


119,286 WALES TERRELL.

CARRIAGE HEAD-BLOCK PLATES.

119,287 STEPHEN USTICK.

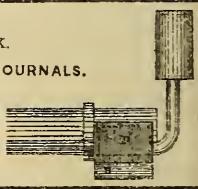
LUBRICATING LOOSE PULLEYS.

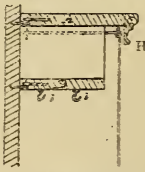


STEPHEN USTICK.

LUBRICATING JOURNALS.

119,288





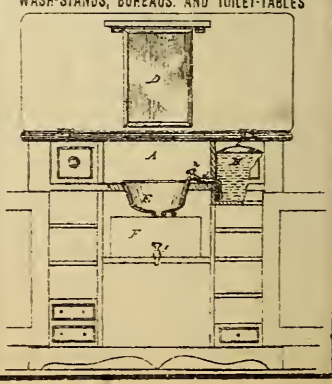
119,289

HENRY WHITTEMORE.

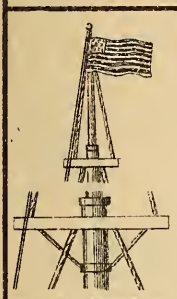
WARDROBE

119,290 HENRY WHITTEMORE.

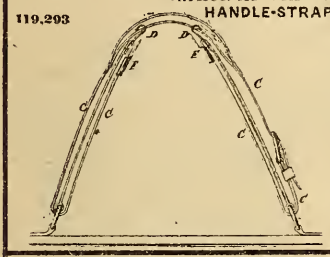
WASH-STANDS, BUREAUS, AND TOILET-TABLES



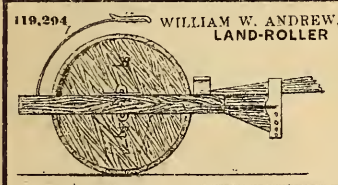
119,291
LOUIS WOLFSON,
References. ORNAMENTING LEATHER.
A Sheet of Leather.
a Coating of wax.
b b Indents by heated iron.



119,292
WILLIAM ALBERT.
FLAG-HALYARDS.

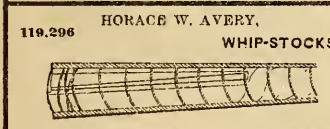


119,293
ARTHUR ALEXANDRE.
HANDLE-STRAPS



119,294
WILLIAM W. ANDREW,
LAND-ROLLER

119,295
SIMEON ATHA.
HUBS FOR WAGON-WHEELS.



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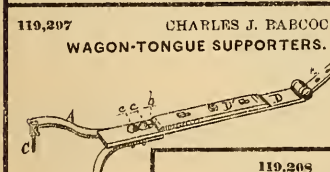
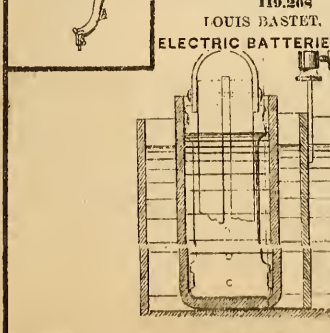
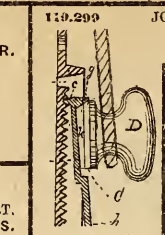
HORACE W. AVERY,
WHIP-STOCKS.



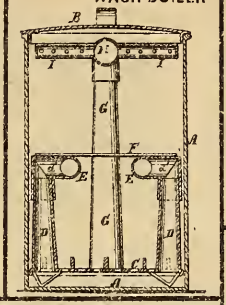
119,297
CHARLES J. BABCOCK,
WAGON-TONGUE SUPPORTERS.



119,298
LOUIS BASTET.
ELECTRIC BATTERIES.



119,299
JOHN E. BAUM.
CURTAIN-FIXTURES.



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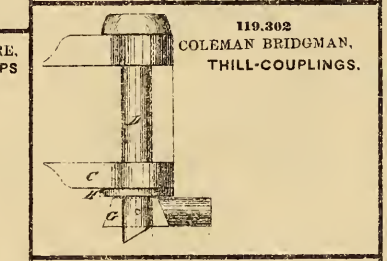
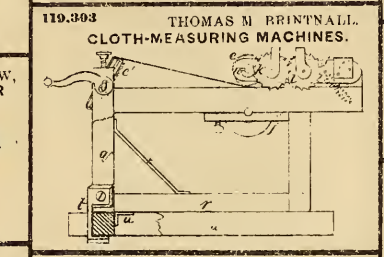
SILAS BENNETT.
WASH-BOILER



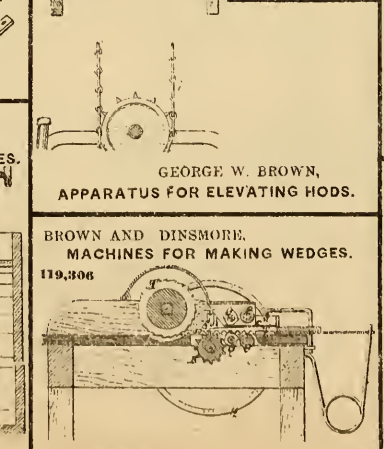
119,302
COLEMAN BRIDGMAN,
THILL-COUPLINGS.



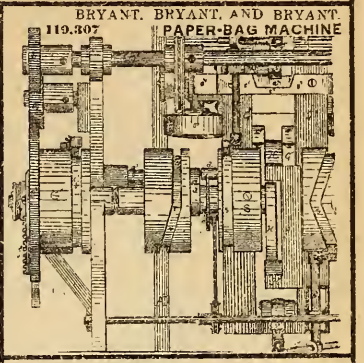
119,303
THOMAS M BRINTNALL.
CLOTH-MEASURING MACHINES.

119,304
ALFRED BROWN.
SHUTTER-WORKER

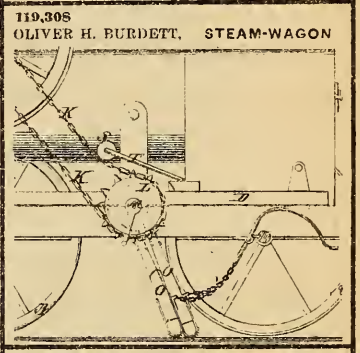
119,305
GEORGE W. BROWN,
APPARATUS FOR ELEVATING HODS.



BROWN AND DINSMORE.
MACHINES FOR MAKING WEDGES.
119,306

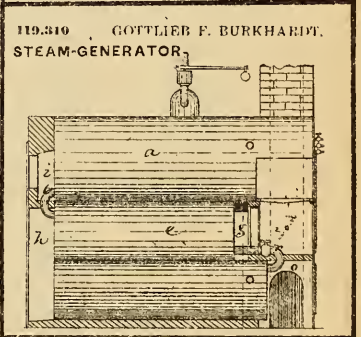


BRYANT, BRYANT, AND BRYANT.
119,307
PAPER-BAG MACHINE



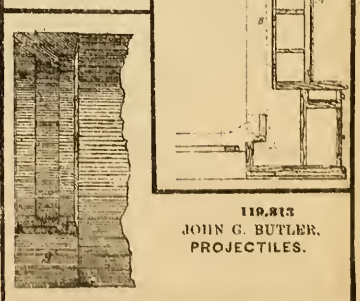
119,308
OLIVER H. BURDETT, STEAM-WAGON

119,309
ORRIN C. BURDICT.
CARRIAGE-BOLTS.



119,310
GOTTLIEB F. BURKHARDT.
STEAM-GENERATOR.

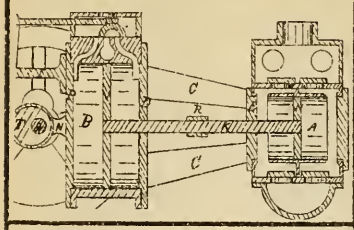
119,311
BENJAMIN BURLING.
CLOTHES-PINS.



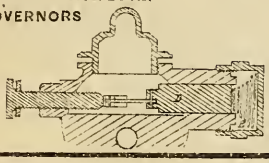
119,312
CABINET-BEDSTEADS.
SANFORD S. BURR.

119,313
JOHN G. BUTLER.
PROJECTILES.

119,314 BUTTON AND BUTTON.
STEAM-PUMP



119,315
CAMP AND McINTOSH.
-GOVERNORS



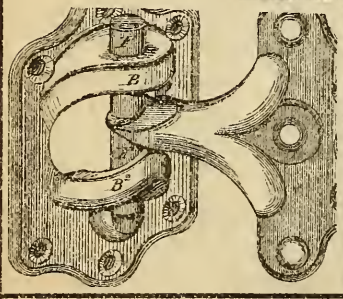
119,316
DESKS FOR SCHOOL-TEACHERS.
CARTER AND EMERY,

THOMAS A. CHANDLER,
119,317

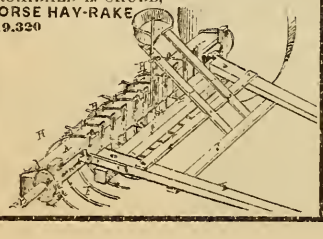
DRILL AND NUT-WRENCHES.

119,318
HENRY CHATAIN.
FRAMES FOR DRVING LACES.

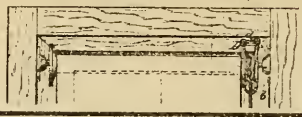
119,319
PASCAL P. CHILD.
REVERSIBLE HINGES.



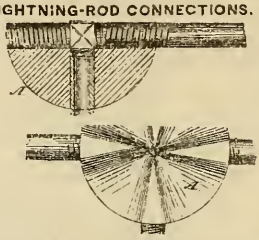
ARCHIBALD L. CHUBB.
HORSE HAY-RAKE.
119,320



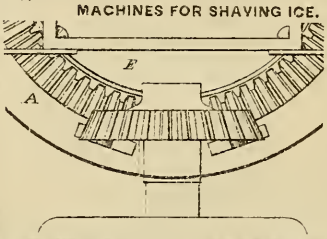
119,321
CURTAIN-FIXTURES.
HERBERT CLAYTON,



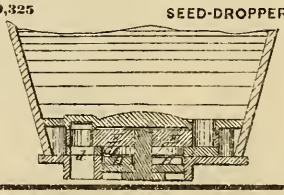
119,323 AYRES CODINGTON.
LIGHTNING-ROD CONNECTIONS.



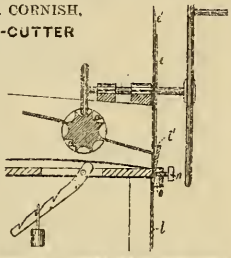
119,324 WILLIAM H. COLLINS
MACHINES FOR SHAVING ICE.



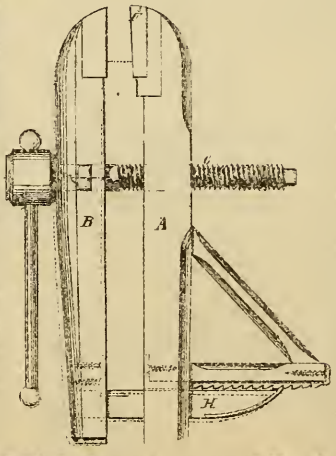
CONVERSE AND. WELTER,
119,325 SEED-DROPPERS.



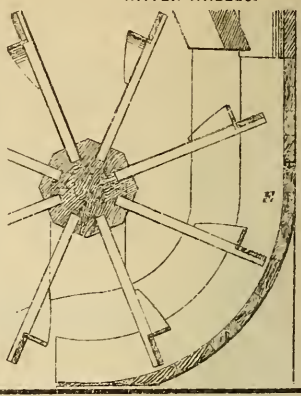
119,326
JOHN A. CORNISH,
STRAW-CUTTER



119,327 JOHN W. COYNE.
VISES.

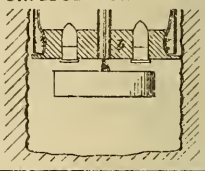


119,328 CRESS AND CRESS,
WATER-WHEELS.

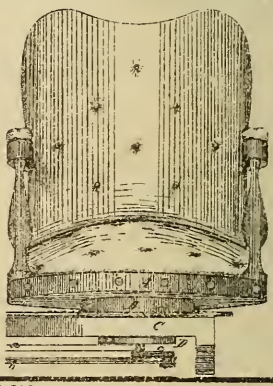


119,329 DARIUS DAVISON,
ILLUMINATING-GAS.

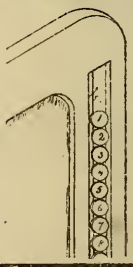
119,330. JULIUS C. DICKEY.
TORPEDOES FOR OIL-WELLS.



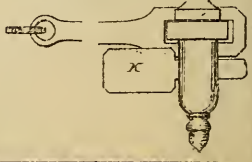
119,331 ALPHEUS B. DINSMORE.
RAILWAY-CAR SEATS.



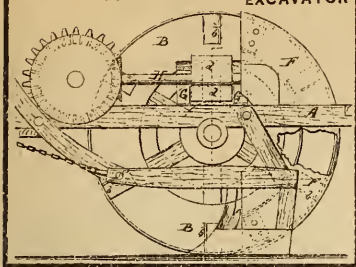
119,332
FREEMAN DOSSONE,
SLATES.



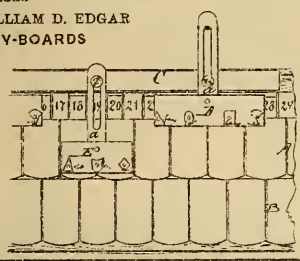
119,333 GEORGE R. DUNN
SEAL LOCKING-BOLTS.



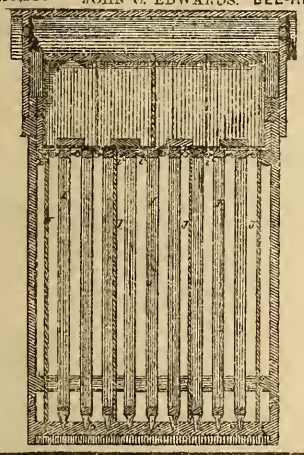
119,334 JOHN M. DUNN, EXCAVATOR



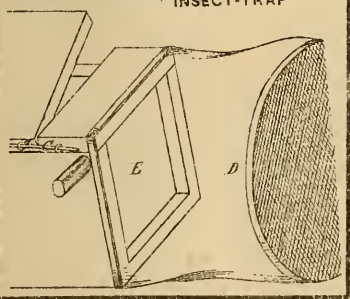
119,335 WILLIAM D. EDGAR KEY-BOARDS



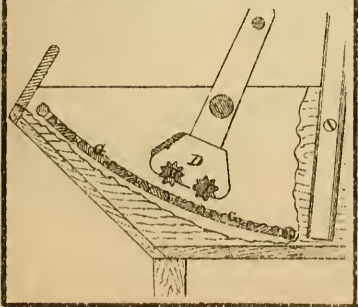
119,336 JOHN C. EDWARDS. BEE-HIVE



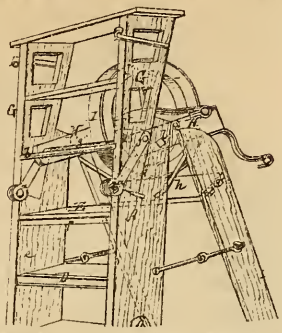
119,337 SAMUEL ENDSLOW, INSECT-TRAP



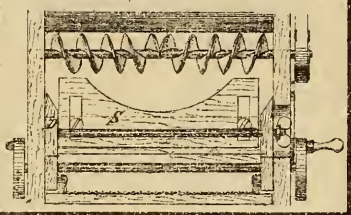
JOHN P. ESHLEMAN, 119,338 WASHING-MACHINE



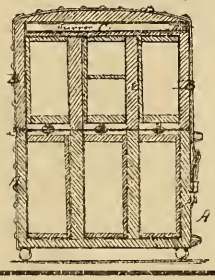
119,339 HENRY JAMES EVANS. WHEELBARROWS AND STEP-LADDERS.



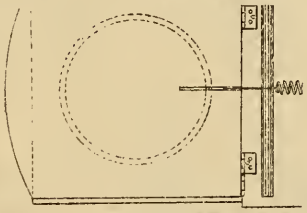
119,340 FRANCIS EVES, FANNING-MILLS.



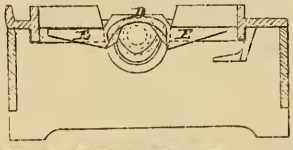
119,341 HENRY SAXON FARLEY. TRUNK



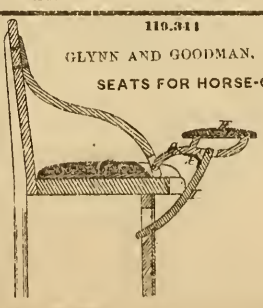
119,342 BENJAMIN G. FITZHUGH WATER-CLOSET SEATS.



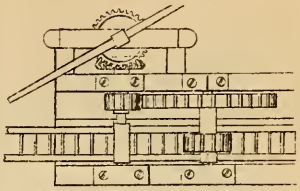
119,343 CORNELIUS O. FOLEY. STOVE-GRATES.



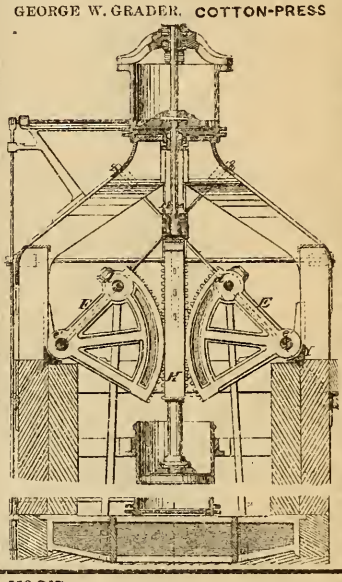
119,344 GLYNN AND GOODMAN, SEATS FOR HORSE-CARS.



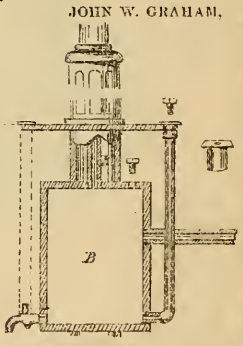
119,345 JOHN H. GOSLINE, MARINE RAILWAYS.



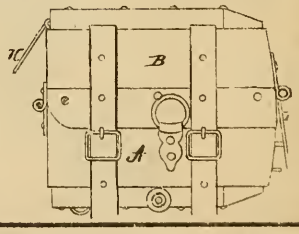
119,346 GEORGE W. GRADER. COTTON-PRESS



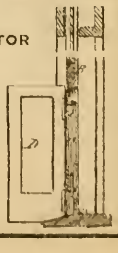
119,347 LAMP-POST JOHN W. GRAHAM,



119,348 TRUNK NICHOLAS GROEL.

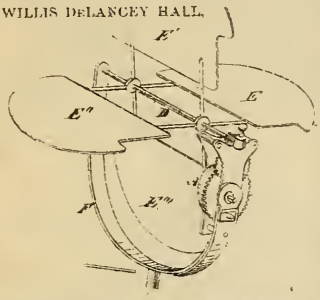


119,349 HALL AND SHAFFER, RAILROAD-CAR VENTILATOR

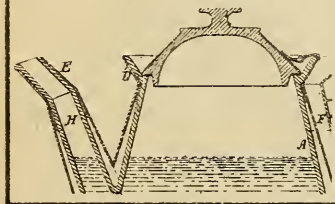


119,350 HENRY M. HALL.
DEVICES FOR SECURING HEMMERS.

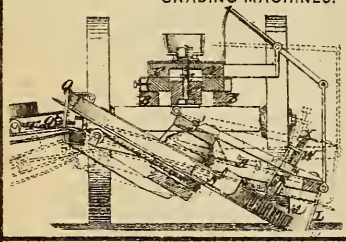
119,351 AUTOMATIC FANS.
WILLIS DELANCEY HALL.



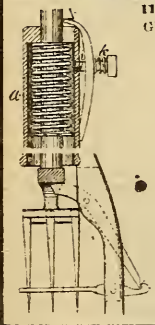
119,352 HORACE J. HAMMOND.
TEA-AND-COFFEE POTS.



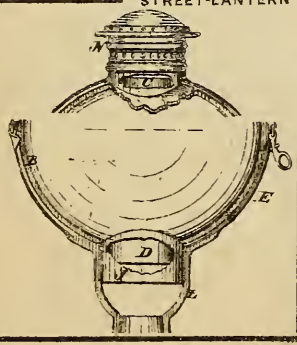
119,353 JOHN F. HANNA.
GRADING-MACHINES.



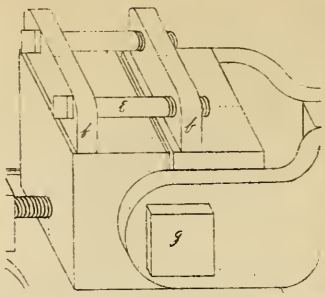
119,354 GEORGE W. HARDWICK.
MOLE-TRAP



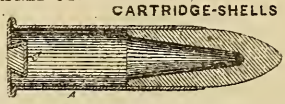
119,355 JACOB F. HARLY.
STREET-LANTERN



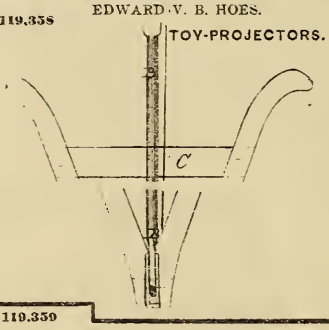
119,356 GEORGE W. HARRISON.
HARVESTER-PITMEN.



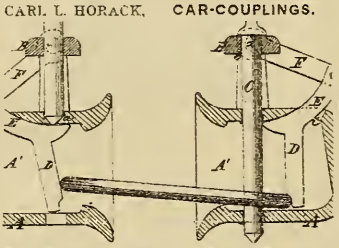
119,357 ALFRED CHARLES HOBBS.
CARTRIDGE-SHELLS



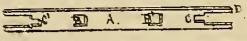
119,358 EDWARD V. B. HOES.
TOY-PROJECTORS.



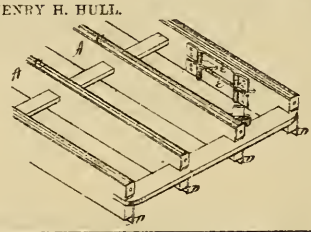
119,359 CARL L. HORACK. CAR-COUPLINGS.



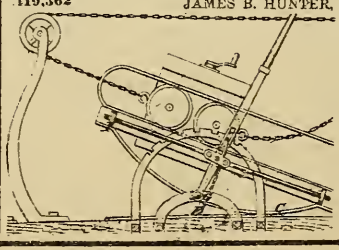
119,360 JOHN M. HORTON.
DEVICES FOR LOCKING-NUTS.



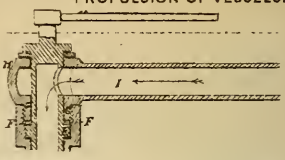
119,361 CLOD-BREAKING-MACHINE
HENRY H. HULL.



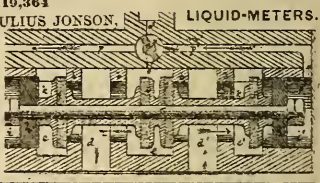
119,362 MOTIVE POWERS.
JAMES B. HUNTER.



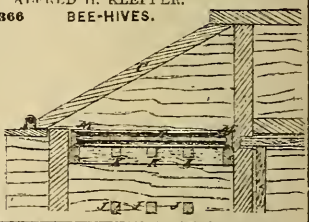
119,363 HENRY JACKSON.
PROPULSION OF VESSELS.



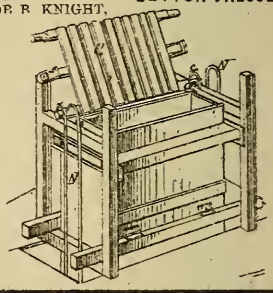
119,364 JULIUS JONSON. LIQUID-METERS.



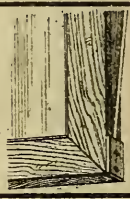
ALFRED H. KLEPPER.
119,366 BEE-HIVES.



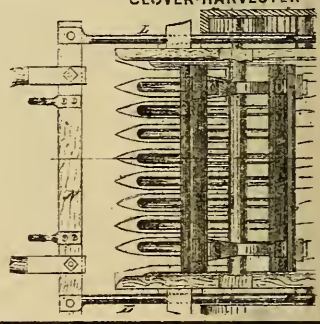
119,367 COTTON-PRESSES.
JACOB B. KNIGHT.



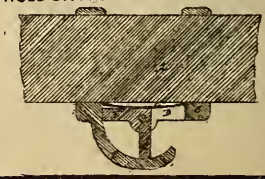
119,368 WILLIAM KNIGHT.
SLATE-FRAMES.



119,369 JONATHAN LAMBURN.
CLOVER-HARVESTER

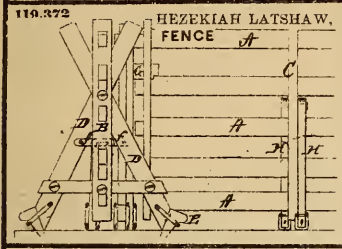


119,370 JOHN A. LANNERT.
HOLD-BACKS FOR CARRIAGES.

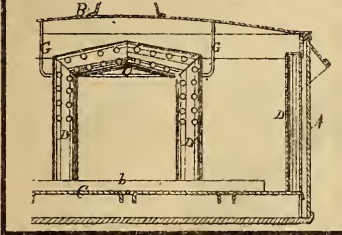


JOHN A. LANNERT. WHIFFLETREES.
119,371

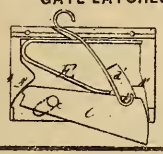
119,372 HEZEKIAH LATSHAW. FENCE



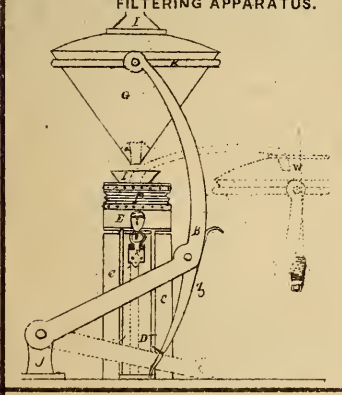
119,373
GEORGE J. LEACH. WASH-BOILERS.



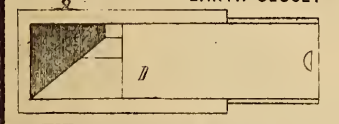
JOHN H. LEE GATE-LATCHES.
119,374



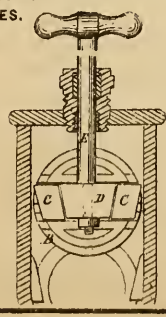
119,375
ROBERT M. LINN,
FILTERING APPARATUS.



119,376 JOSEPH M. LOEWENSTEIN,
EARTH CLOSET

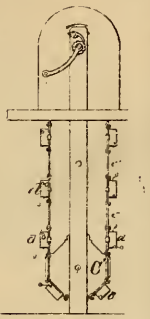


HENRY G. LUDLOW. 119,378
SLIDING STOP-VALVES.

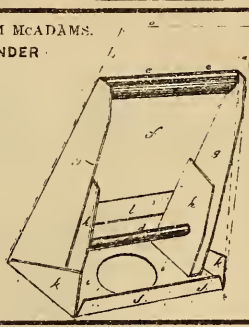


119,379 JOSEPH B. MARSH
TRUSS-PADS.

119,380
ISAAC MAYFIELD,
WATER-ELEVATORS.



119,381
WILLIAM McADAMS.
CALENDER



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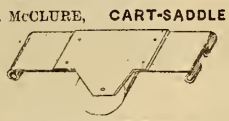
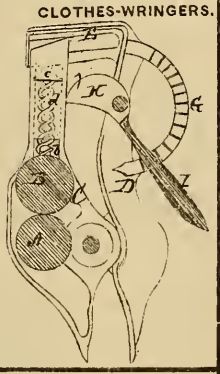
WILLIAM B. McCLURE, CART-SADDLE

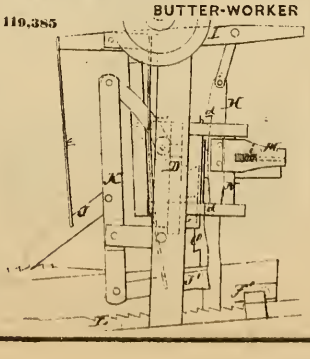


119,383 JAMES JOSEPH McLOUGHLIN.
THREAD-CUTTER

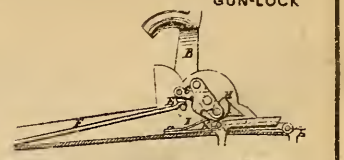
119,384
CHARLES V. MEAD.
CLOTHES-WRINGERS.



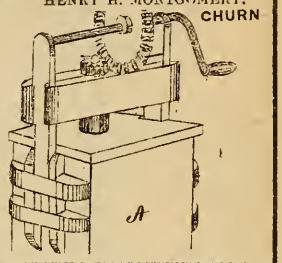
PETER P. MEREDITH,
BUTTER-WORKER
119,385



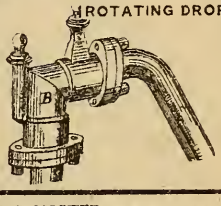
119,386 ABSALOM MILLER.
GUN-LOCK



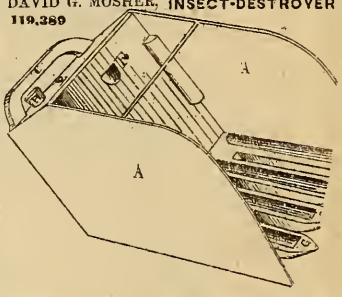
119,387 HENRY H. MONTGOMERY.
CHURN



119,388 GEORGE C. MORGAN.
ROTATING DROP-PIPES.



DAVID G. MOSHER. INSECT-DESTROYER
119,389



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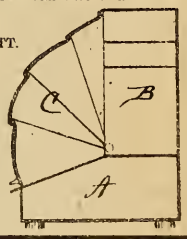
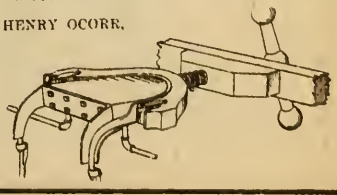
HARCOURT MOTT.
OFFICE-DESKS.



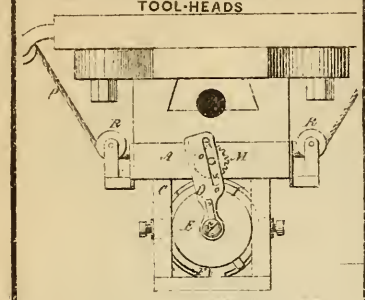
119,391 JOHN MURPHY.
BILLIARD-CUSHION

119,392
AUGUST NEUHAUSEN.
CANDY WHISTLES.

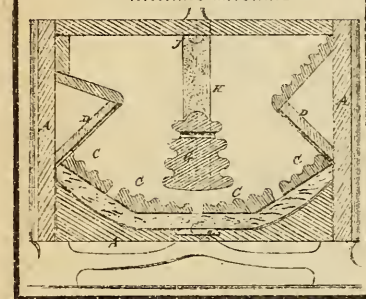
119,393
MACHINES FOR BENDING WOOD
HENRY OCORR.



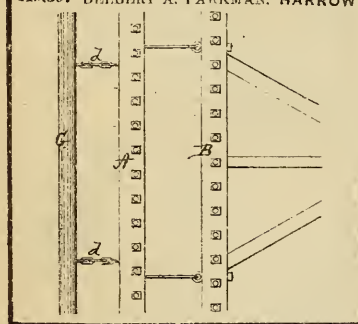
119,395 SETH WHITE PAINE.
TOOL-HEADS



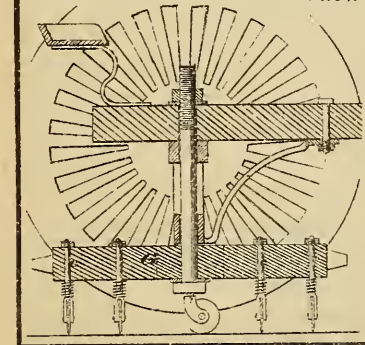
119,396 JOSEPH H. PALMER.
WASHING-MACHINE



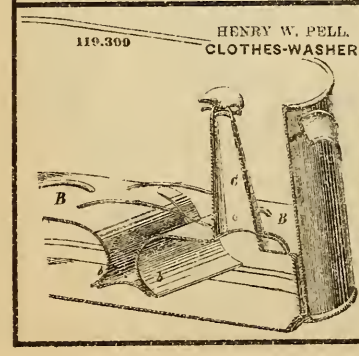
119,397 DELBERT A. PARKMAN. HARROW

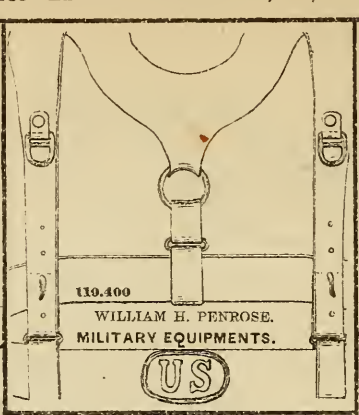


119,398 JAMES M. PAYNE. HARROW



119,399 HENRY W. PELL.
CLOTHES-WASHER

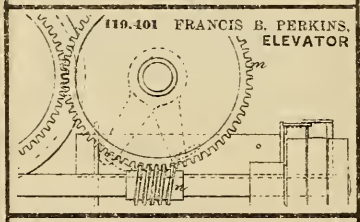




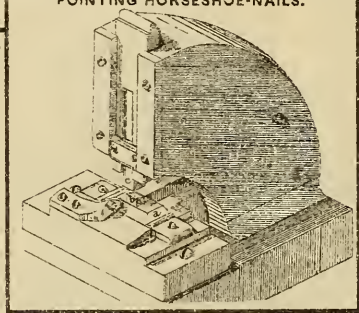
119,400
WILLIAM H. PENROSE.
MILITARY EQUIPMENTS.

US

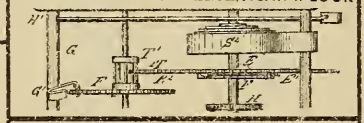
119,401 FRANCIS B. PERKINS.
ELEVATOR



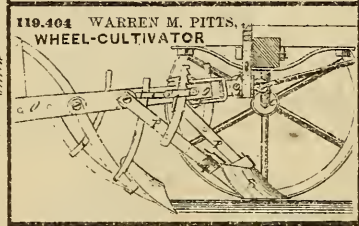
119,402 CHARLES H. PERKINS.
POINTING HORSESHOE-NAILS.



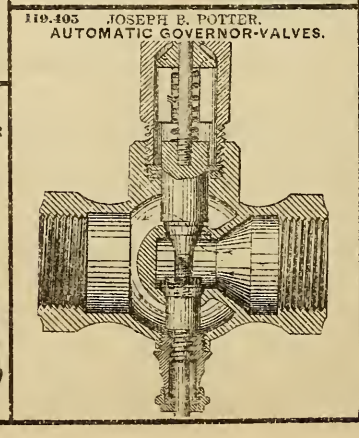
119,403 CHARLES E. PIERCE. ALARM-LOCK



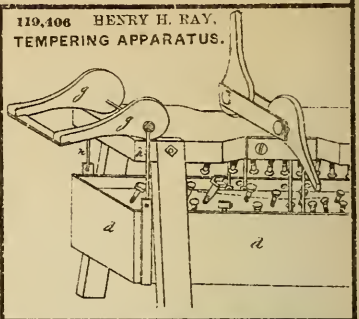
119,404 WARREN M. PITTS.
WHEEL-CULTIVATOR



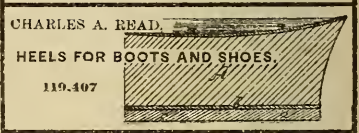
119,405 JOSEPH B. POTTER.
AUTOMATIC GOVERNOR-VALVES.

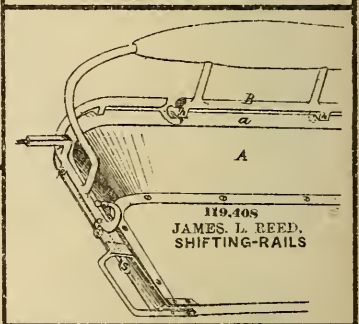


119,406 HENRY H. RAY.
TEMPERING APPARATUS.



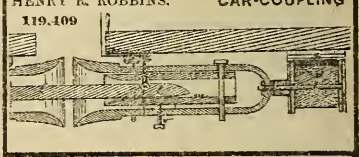
CHARLES A. READ.
HEELS FOR BOOTS AND SHOES.
119,407



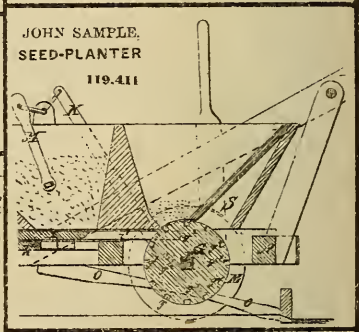


119,408
JAMES. L. REED.
SHIFTING-RAILS

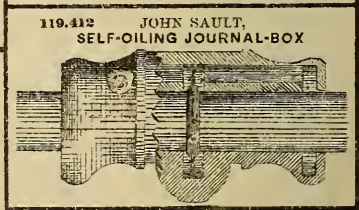
HENRY R. ROBBINS. CAR-COUPLING
119,409

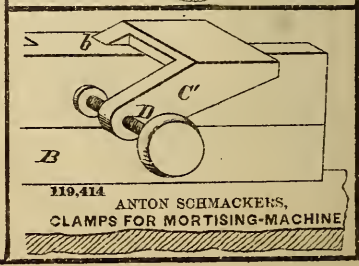


JOHN SAMPLE.
SEED-PLANTER
119,411



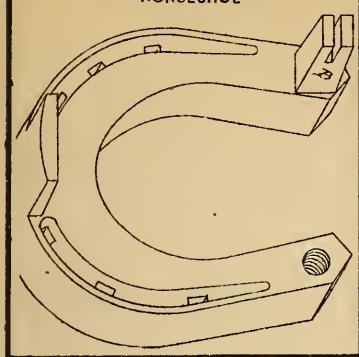
119,412 JOHN SAULT.
SELF-OILING JOURNAL-BOX





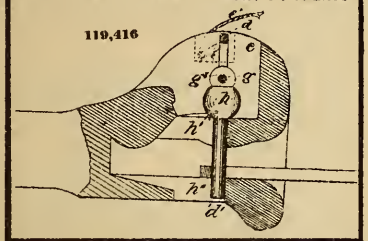
119,414
ANTON SCHMACKERS.
CLAMPS FOR MORTISING-MACHINE

119,415 RUDOLPH SEIFFERT, HORSESHOE

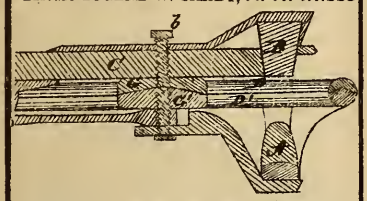


GEORGE C. SHERMAN CAR COUPLING

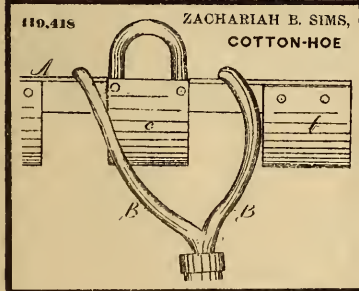
119,416



119,417 EUGENE W. SILSBY, FIFTH-WHEEL



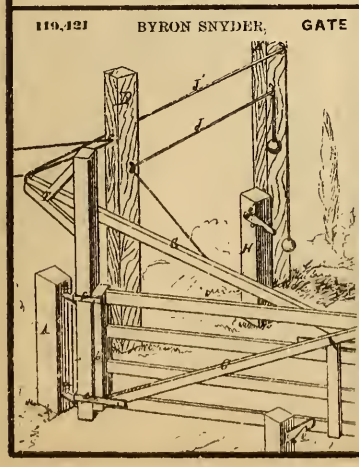
119,418 ZACHARIAH B. SIMS, COTTON-HOE



SKINNER AND SKINNER, ROLLED STEEL-PLATES

119,419

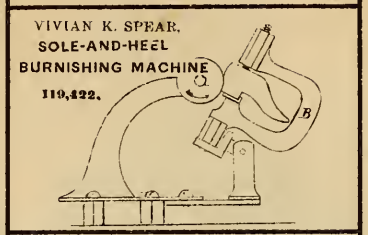
119,421 BYRON SNYDER, GATE



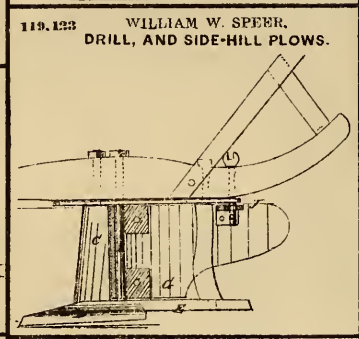
119,420 FRIDOLIN SMITH, WAGON-HOUNDS.

VIVIAN K. SPEAR, SOLE-AND-HEEL BURNISHING MACHINE

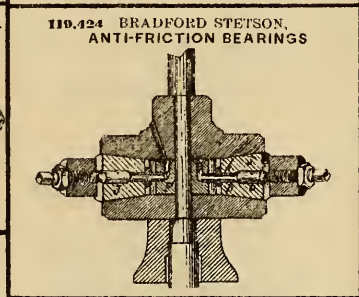
119,422.



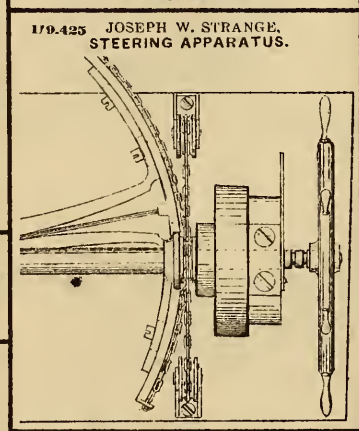
119,423 WILLIAM W. SPEER, DRILL, AND SIDE-HILL PLOWS.



119,424 BRADFORD STETSON, ANTI-FRICTION BEARINGS

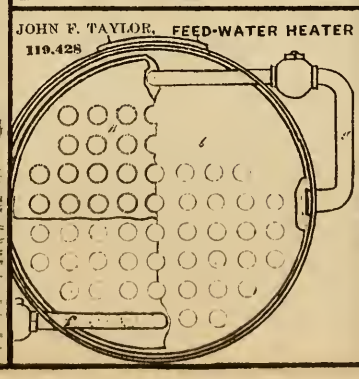


119,425 JOSEPH W. STRANGE, STEERING APPARATUS.

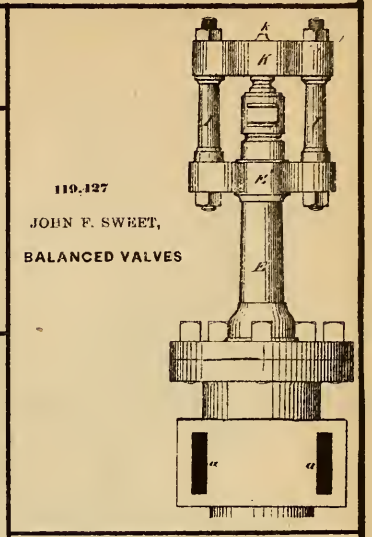


JOHN F. TAYLOR, FEED-WATER HEATER

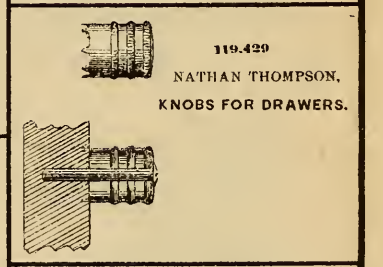
119,428



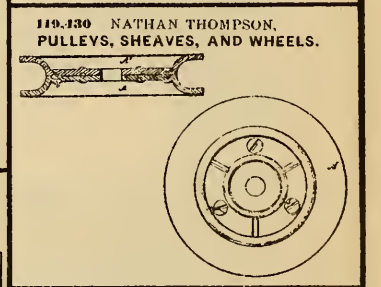
119,427 JOHN F. SWEET, BALANCED VALVES



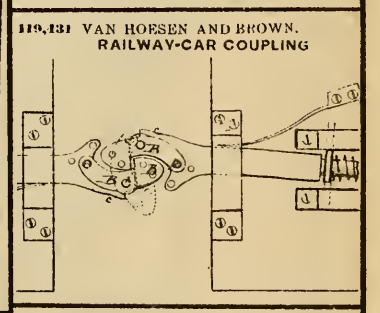
119,429 NATHAN THOMPSON, KNOBS FOR DRAWERS.



119,430 NATHAN THOMPSON, PULLEYS, SHEAVES, AND WHEELS.

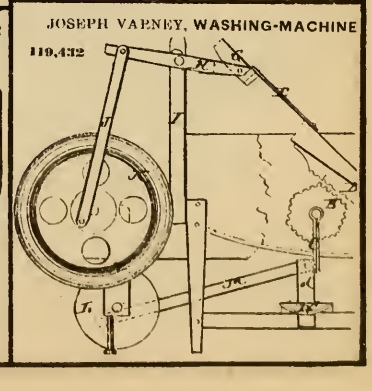


119,431 VAN HOESEN AND BROWN, RAILWAY-CAR COUPLING

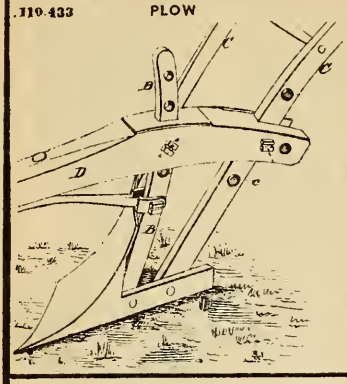


JOSEPH VARNEY, WASHING-MACHINE

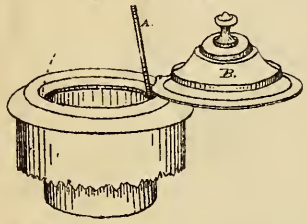
119,432



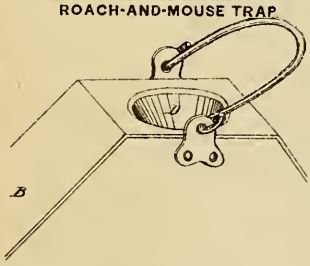
JAMES CUNNINGHAM VERTREES.
119,433 PLOW



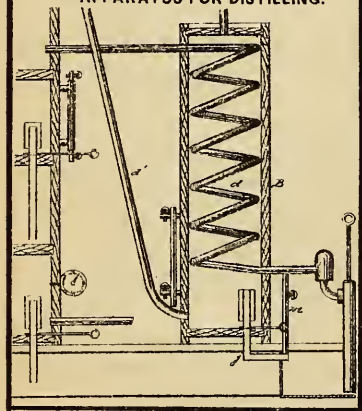
119,434 JACOB V. VROOMAN.
STOVE-COVERS



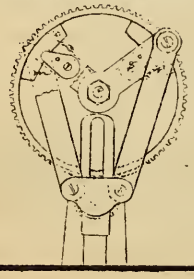
119,435 WILLIAM J. WEBB.
ROACH-AND-MOUSE TRAP



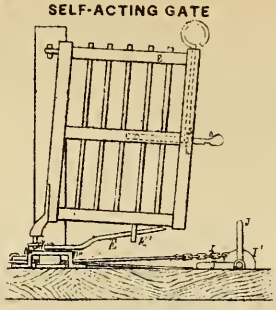
119,436 ERNST WERNER.
APPARATUS FOR DISTILLING.



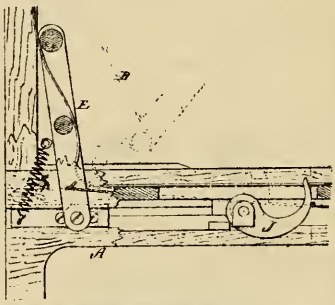
119,437 HENRY F. WHEELER.
TRANSMITTING MOTION.



119,438 FRANKLIN WHITAKER.
SELF-ACTING GATE

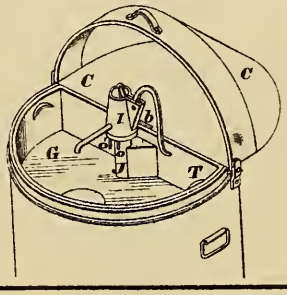


119,439 GEORGE WILLETT.
MANUFACTURING BRUSHES.

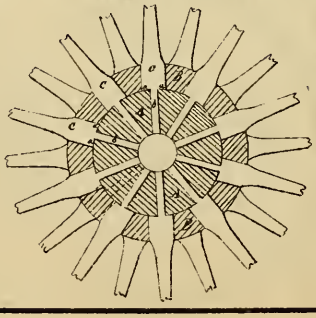


119,440 GEORGE WILLETT.
MANUFACTURING BRUSHES.

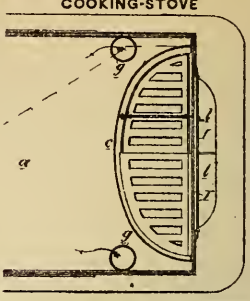
119,441 GEORGE D. WINCHELL. OIL-CAN



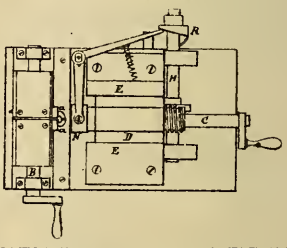
4,567 JAMES R. BAIRD.
WHEELS FOR VEHICLES.



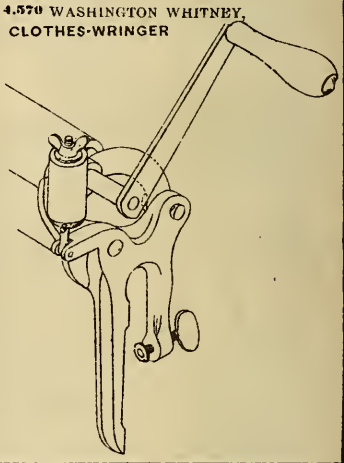
4,568 MARY ANN BOUGHTON.
COOKING-STOVE



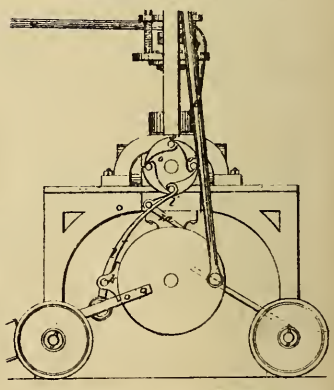
4,569 JAMES SWAN.
FORMING THE LIPS OF AUGERS.



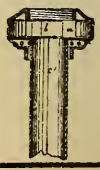
4,570 WASHINGTON WHITNEY.
CLOTHES-WRINGER



4,571 WILLIAM C. KING.
OPERATING GLASS-MOLDS.

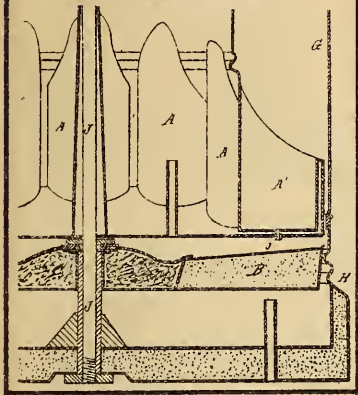


4,572
MANN AND MANN
LAMP

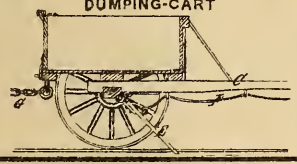


ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
OCTOBER 3, 1871.

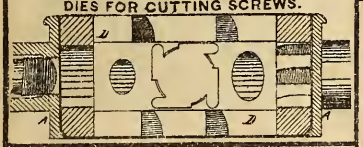
119,443 CYRUS AVERY.
REVOLVING REFRIGERATOR



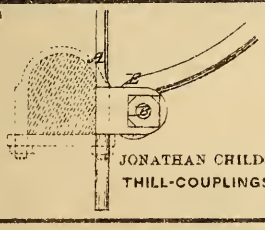
119,444 BENSON AND FALK.
DUMPING-CART



119,445 JOHN CARROLL.
DIES FOR CUTTING SCREWS.

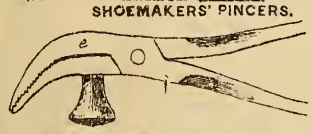


119,446

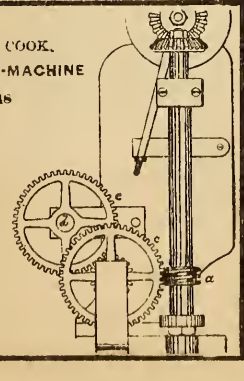


JONATHAN CHILDS,
THILL-COUPLINGS.

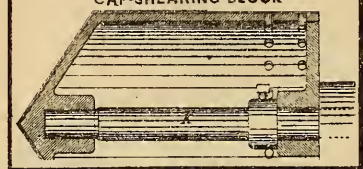
119,447 ARTHUR CLARKE.
SHOEMAKERS' PINCERS.



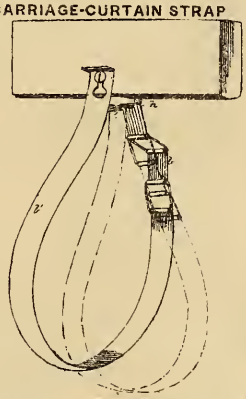
RICHARD COOK.
KNITTING-MACHINE
119,448



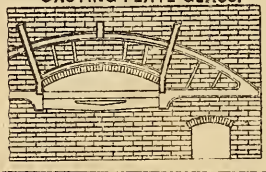
119,449 COOK AND HANFORD,
CAP-SHEARING BLOCK



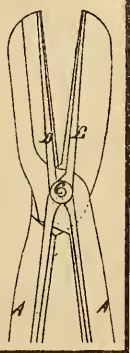
119,450 CORNELL AND MARSHALL.
CARRIAGE-CURTAIN STRAP



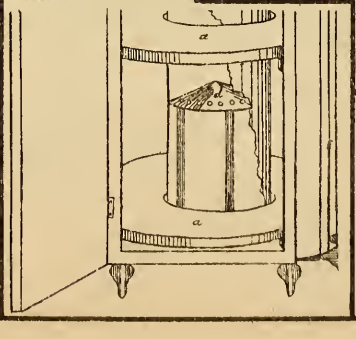
119,451 EWAN COSSABOOM
CASTING PLATE-GLASS.



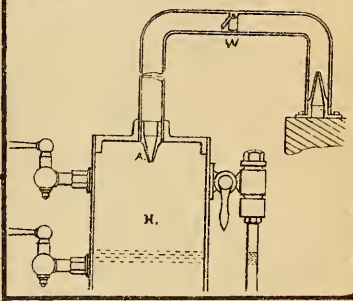
119,452
JOHN F. CREIGHTON,
PRUNING-SHEARS.



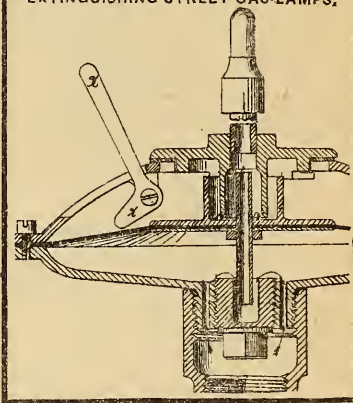
119,453
HENRY DAVIS AND
RINALDO ALDEN,
REFRIGERATORS.



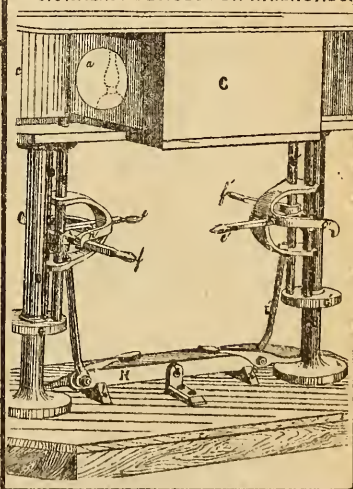
119,454 MORRIS DOYLE, WATER-GAUGE



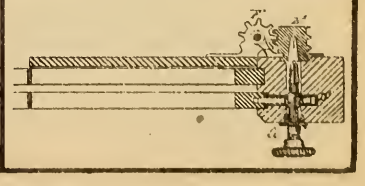
119,455 GEORGE S. DUNBAR.
EXTINGUISHING STREET GAS-LAMPS.



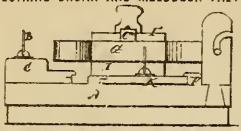
119,456 GEORGE F. FOLSOM,
SIGNALING DEVICES FOR RAILROADS.



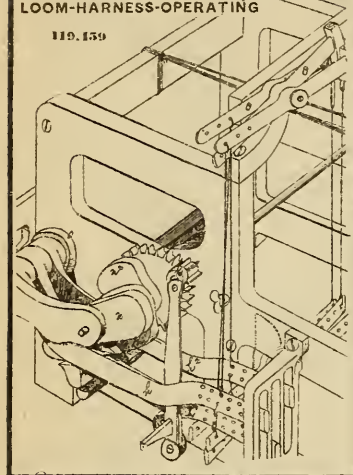
119,457 LOUIS OATHMANN,
SASH-HOLDERS AND BLIND-OPENERS.



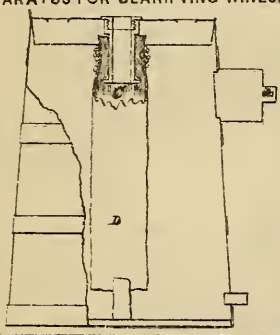
119.458 CZAR D. GOODMAN.
CLOTHING ORGAN AND MELODEON-VALVES.



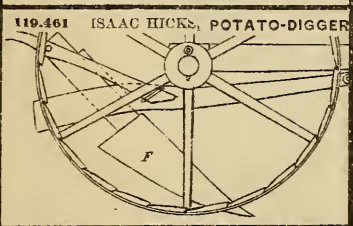
ROBERT BURNS GOODYEAR.
LOOM-HARNESS-OPERATING
119.459



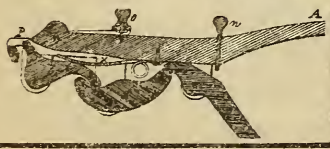
119.460 AUGUST GOTTSCHALK.
APPARATUS FOR CLARIFYING WINES.



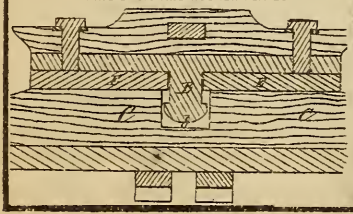
119.461 ISAAC HICKS. POTATO-DIGGER



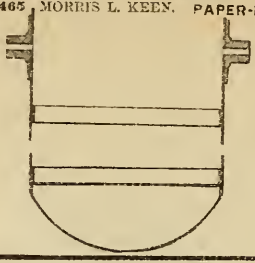
119.462 DAVID JONES. SAW-SET



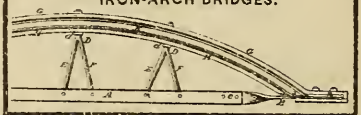
119.463 JAMES A. JUDD.
KING-BOLTS AND ROCKER-PLATES



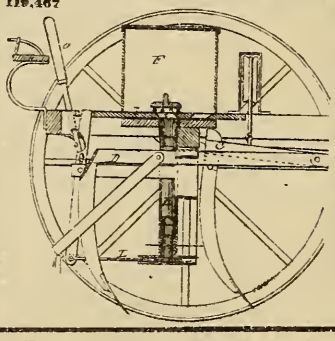
119.465 MORRIS L. KEEN. PAPER-PULP



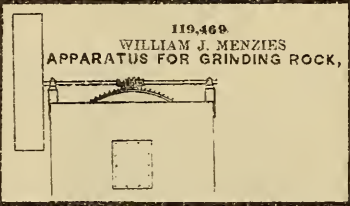
119.466 LEVI KITTINGER.
IRON-ARCH BRIDGES.



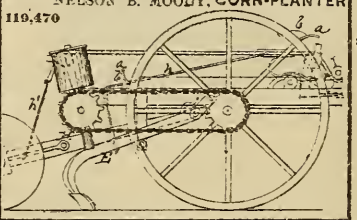
KNULL AND PENCE. CORN-PLANTER
119.467



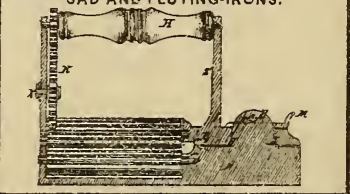
119.469
WILLIAM J. MENZIES
APPARATUS FOR GRINDING ROCK,



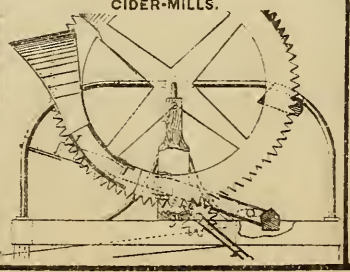
NELSON B. MOODY. CORN-PLANTER
119.470



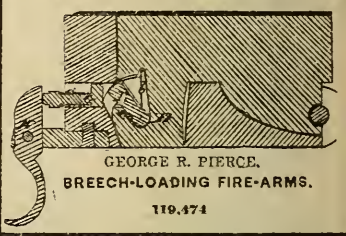
119.471 FREDERICK MYERS.
SAD AND FLUTING-IRONS.



119.472 NEWTON A. PATTERSON
CIDER-MILLS.

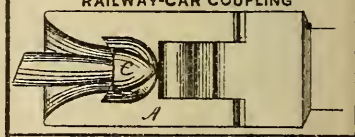


119.473 ALFRED T. PERRINE.
HEELS FOR BOOTS AND SHOES.

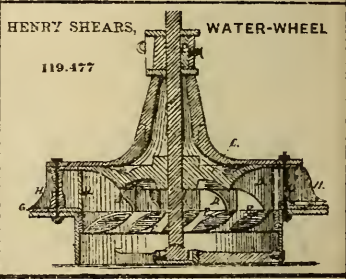


GEORGE R. PIERCE.
BREECH-LOADING FIRE-ARMS.
119.474

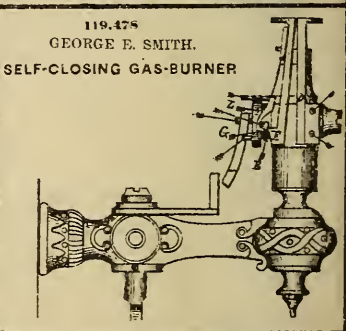
119.475 SEABRED DODGE PRATT.
RAILWAY-CAR COUPLING



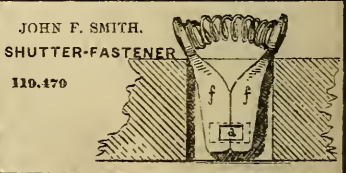
HENRY SHEARS, WATER-WHEEL
119.477



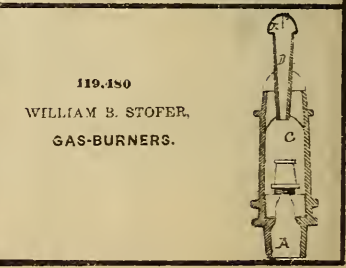
119.478
GEORGE E. SMITH.
SELF-CLOSING GAS-BURNER



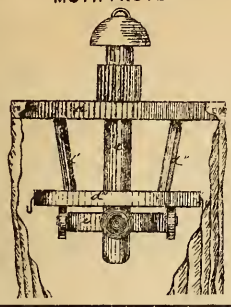
JOHN F. SMITH.
SHUTTER-FASTENER
119.479



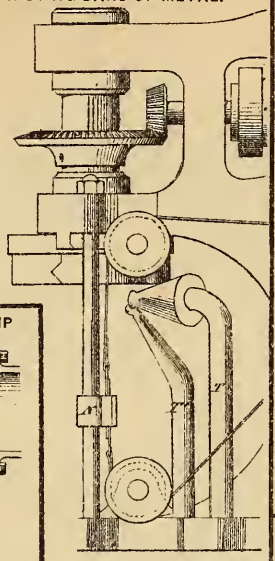
119.480
WILLIAM B. STOFER.
GAS-BURNERS.



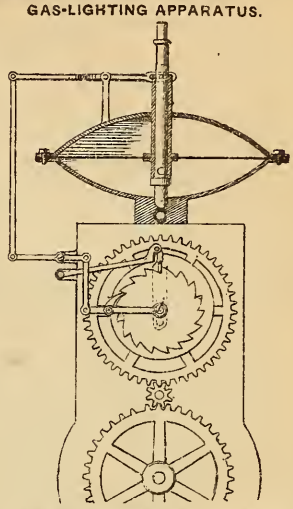
119,481 FERDENAND F. VOIGT, MOTH PROTECTOR



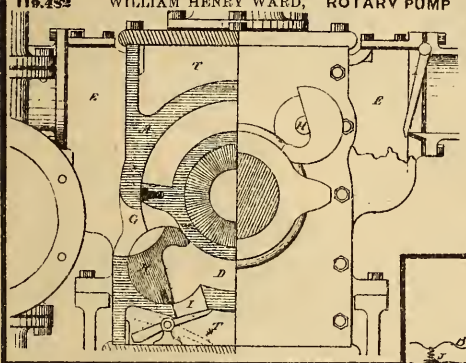
119,486 ARTHUR DAVID WILLIAMS, TWISTING BARS OF METAL.



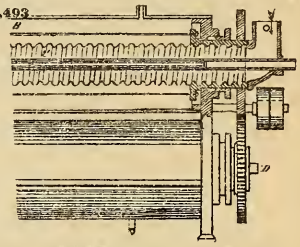
119,492 ALLEN AND DEWEY, GAS-LIGHTING APPARATUS.



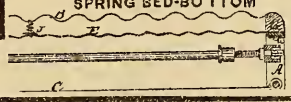
119,482 WILLIAM HENRY WARD, ROTARY PUMP



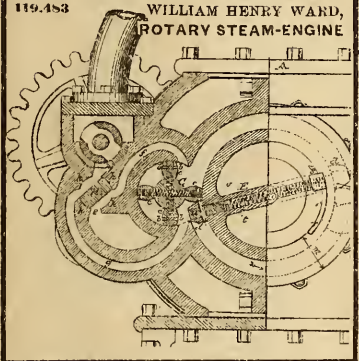
STEPHEN V. APPLEBY, GRAIN-DRIER 119,493



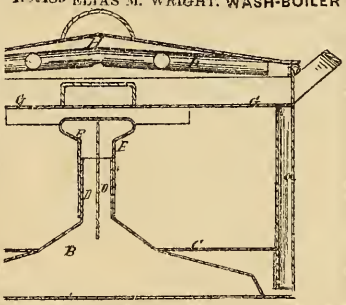
119,487 GEORGE WILSON. SPRING BED-BOTTOM



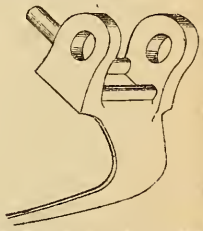
119,483 WILLIAM HENRY WARD, ROTARY STEAM-ENGINE



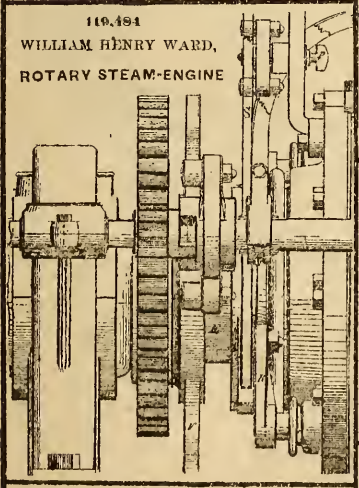
119,489 ELIAS M. WRIGHT. WASH-BOILER



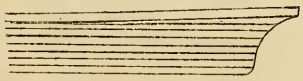
119,494 SETH BARNUM. WAGON-SHAFT COUPLING



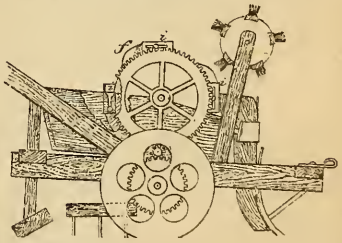
119,484 WILLIAM HENRY WARD, ROTARY STEAM-ENGINE



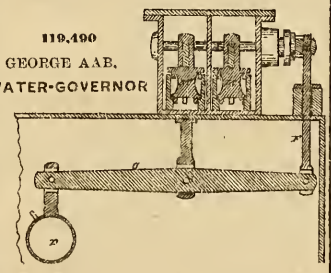
119,488 ADAM WINGARD. CONSTRUCTION OF VESSELS.



119,495 ANDREW P. BARRY, GRAIN-DRILL

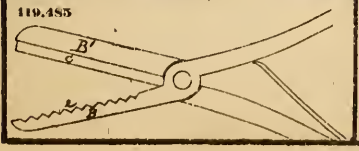


119,490 GEORGE AAB. WATER-GOVERNOR

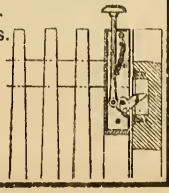


119,496 ABEL H. BARTLETT. SEWING-MACHINE

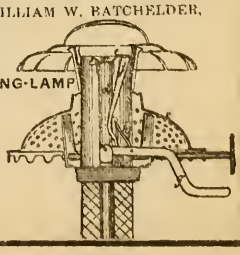
GUSTAVUS A. WARNER, GRAPE-PICKER 119,485



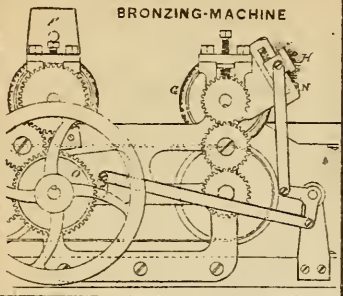
HENRY D. ALDERFER. LATCHES FOR GATES. 119,491



119,497 WILLIAM W. BATCHELDER, SELF-LIGHTING-LAMP

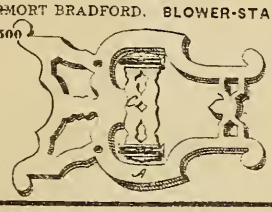


119,498 EDWARD F. BENTON
BRONZING-MACHINE

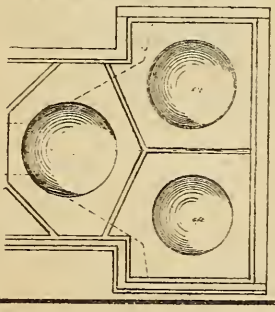


119,499 PURMORT BRADFORD.
TURN-BUTTONS FOR DOORS,

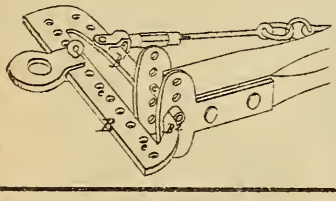
PURMORT BRADFORD. BLOWER-STAND
119,500



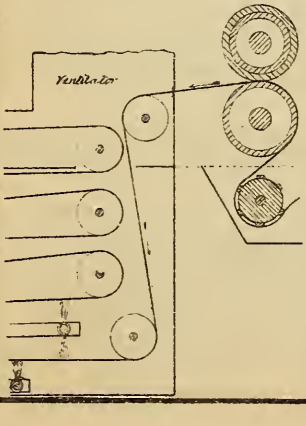
119,501 FRANCOIS M. BRIGNAC.
EVAPORATING CANE-JUICE.



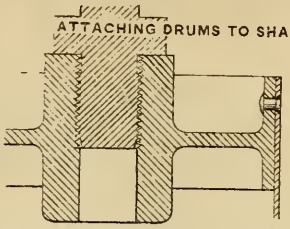
119,502 JERRY BRISON. PLOW-CLEVIS



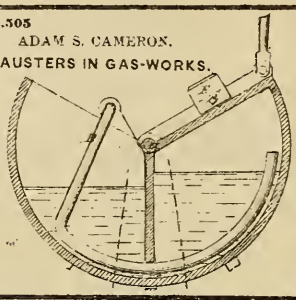
110,503 BENJAMIN G. BROOKS.
DISCHARGING EXTRANEOUS COLORING MATTERS.



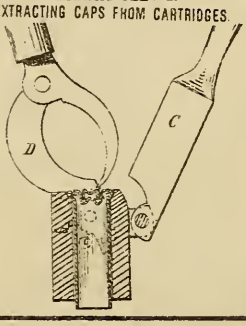
119,504 BENJAMIN G BROOKS.
ATTACHING DRUMS TO SHAFTS.



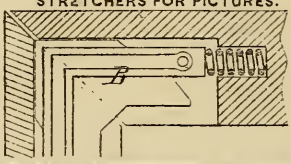
119,505
ADAM S. CAMERON.
EXHAUSTERS IN GAS-WORKS.



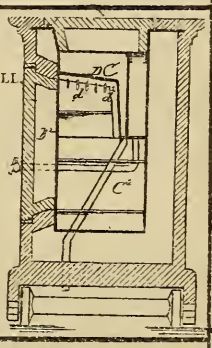
119,506 WILLIAM CLEWS.
EXTRACTING CAPS FROM CARTRIDGES.



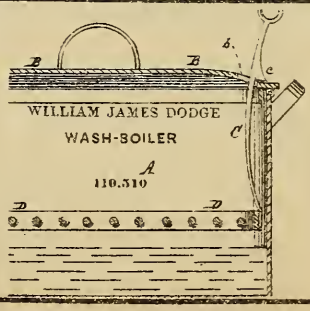
119,507 CROCKER AND BRAND
STRETCHERS FOR PICTURES.



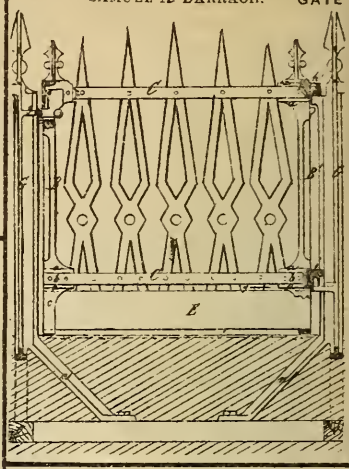
DAVID CROMWELL
REFRIGERATOR
119,508



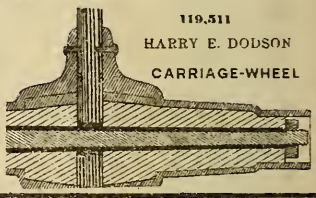
WILLIAM JAMES DODGE
WASH-BOILER
110,510



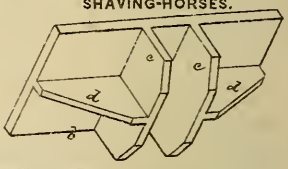
119,509 SAMUEL A. DARRACH. GATE



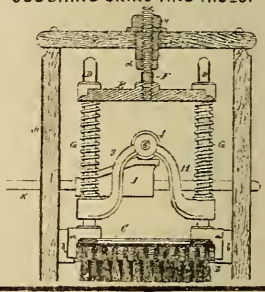
119,511
HARRY E. DODSON
CARRIAGE-WHEEL



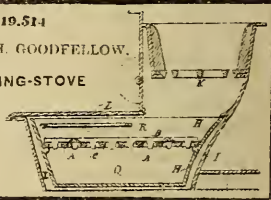
119,512 FRANKLIN J. ELDRED.
SHAVING-HORSES.



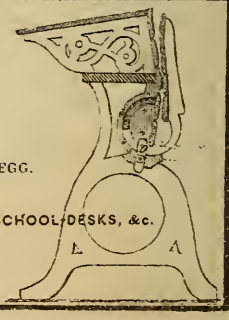
119,513 EDWARD FITZHENRY.
SCOURING SKINS AND HIDES.



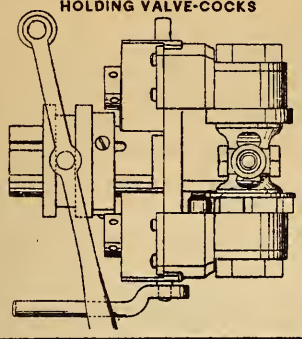
119,514
JOHN H. GOODFELLOW.
COOKING-STOVE



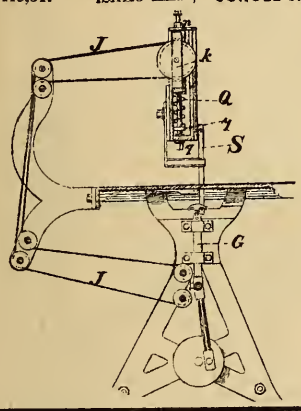
119,515
THOMAS GREGG.
JOINTS FOR SCHOOL-DESKS, &c.



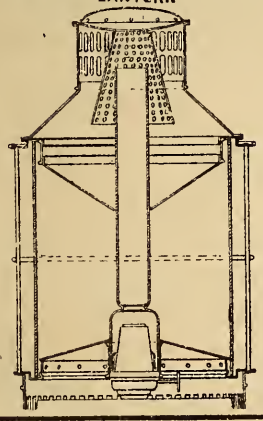
119,516 JOSEPH L. HAYDEN,
HOLDING VALVE-COCKS



119,517 ISAAC HIRD, SCROLL-SAW

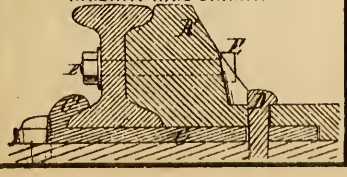


119,518 HULL AND KAUFMAN,
LANTERN

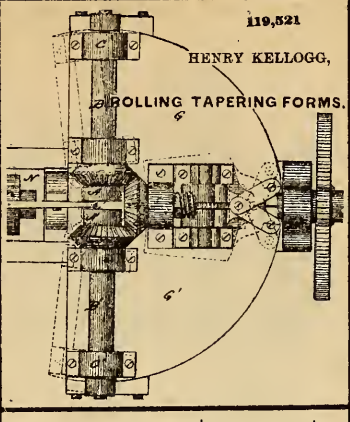


119,519 STEPHEN H. INGERSOLL,
WOOD PAVEMENTS

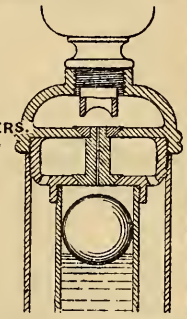
119,520 GRANVILLE E. JARVIS,
RAILWAY-RAIL CHAIRS.



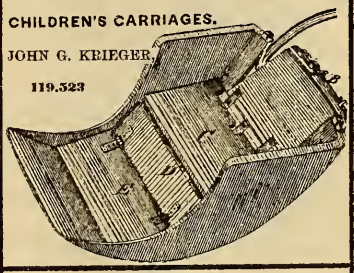
119,521 HENRY KELLOGG,
ROLLING TAPERING FORMS.



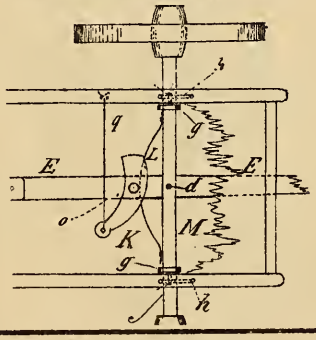
119,522 JOSEPH KIRK,
ALARM
FOR STEAM-BOILERS.



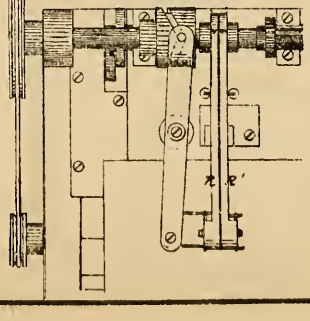
CHILDREN'S CARRIAGES.
JOHN G. KRIEGER,
119,523



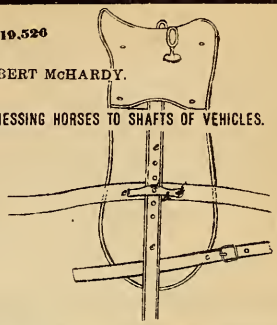
119,524 CHARLES M. LUFKIN,
WAGON-BRAKE



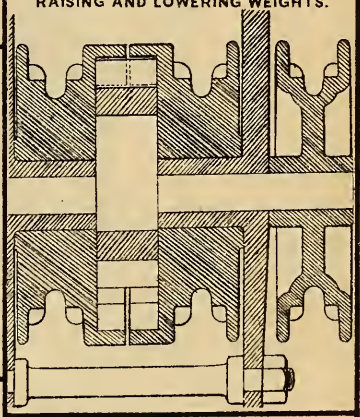
119,525 FRANCIS W. MALLETT,
POLISHING NEEDLES.



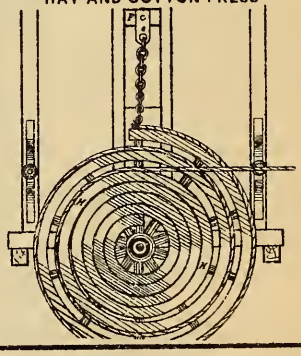
119,526
ROBERT McHARDY.
HARNESSING HORSES TO SHAFTS OF VEHICLES.



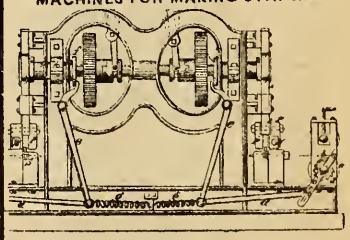
119,527 THOMAS MOORE,
RAISING AND LOWERING WEIGHTS.



119,528 PETER L. NEGLEY,
HAY-AND-COTTON PRESS



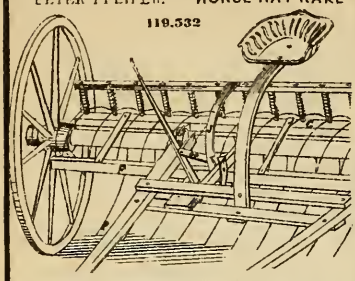
119,529 NOLKER AND MORGAN,
MACHINES FOR MAKING STAPLES.



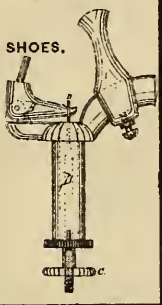
119,530 LOUIS L. NORTHUP,
ATTACHMENTS FOR EAR-DROPS.

119,531
JAMES A. PETTET.
THIMBLES AND
THREAD-CUTTERS.

PETER PFEIFER. HORSE HAY-RAKE
119,532

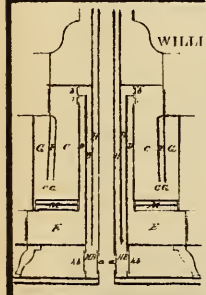


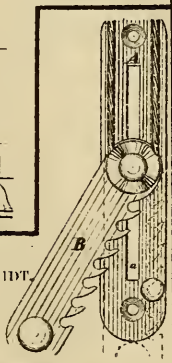
JOHN E. PLUMMER.
JACKS FOR FINISHING SHOES.
119,533



119,534
GEORGE B. RANSOM.
SASH-HOLDER

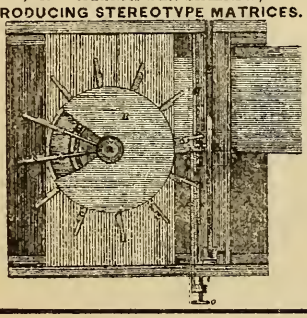
119,535
WILLIAM FRAZIER ROSS.
HEATING-STOVE

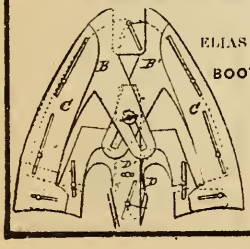




119,536
SCHMIDT AND SCHMIDT.
CURTAIN-RACK

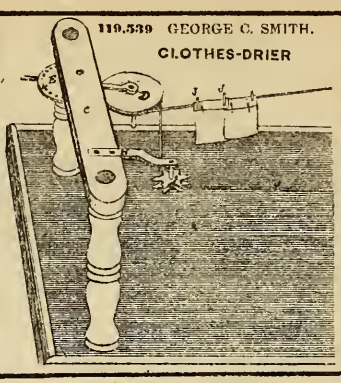
119,537 ALEXANDER SHILAND,
PRODUCING STEREOTYPE MATRICES.

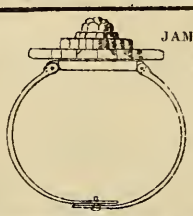




ELIAS SHOPBELL.
BOOT-PATTERN
119,538

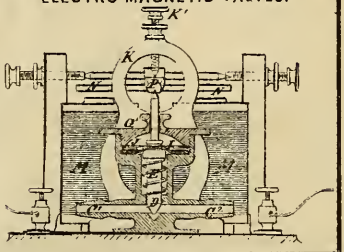
119,539 GEORGE C. SMITH.
CLOTHES-DRIER



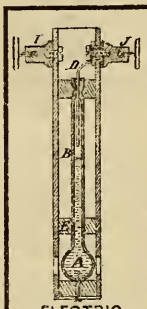


JAMES H. SPRAGUE.
BRACELET
119,540

119,541 GEORGE M. STERNBERG.
ELECTRO-MAGNETIC VALVES.



GEORGE M. STERNBERG.
THERMOMETER
119,542



ELECTRIC
THERMOMETER
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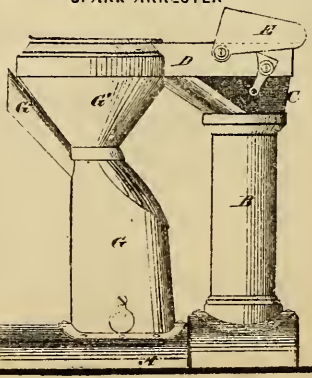
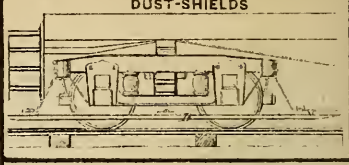
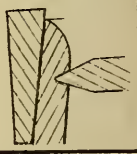
119,544 WILLIAM M. K. THORNTON,
SPARK-ARRESTER



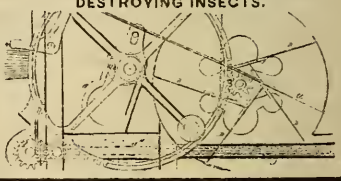
119,545 WILLIAM M. K. THORNTON.
DUST-SHIELDS



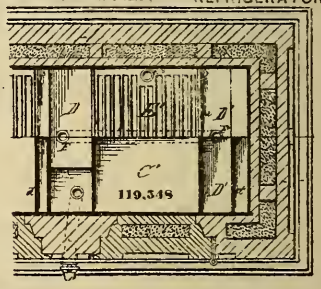
119,546
JAMES TOMLINSON.
BARREL



119,547 PETER SPOHN VAN WAGNER,
DESTROYING INSECTS.

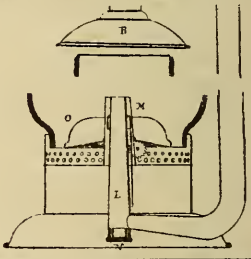


JOHN B. WEBSTER. REFRIGERATOR

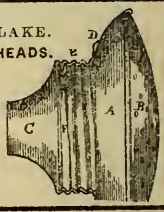


119,548

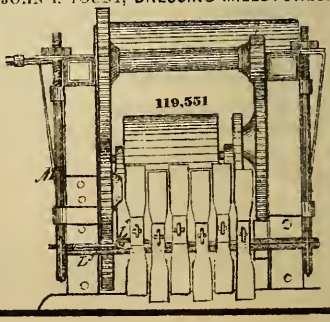
119,549 WILLIAM WESTLAKE. LANTERN



WILLIAM WESTLAKE.
SPRINKLING ROSE-HEADS.
119,550

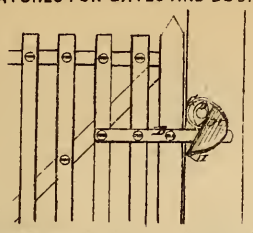


JOHN I. YOUNT, DRESSING MILLSTONES.

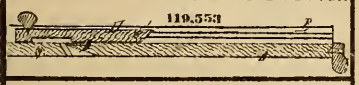


119,551

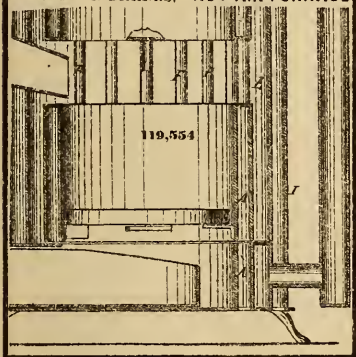
119,552 JESSE H. ALLISON.
LATCHES FOR GATES AND DOORS.



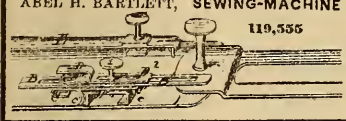
HIRAM BALDWIN, VEGETABLE-CUTTER
119,553



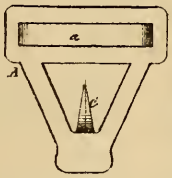
JOSEPH C. BARNES, HOT-AIR FURNACE
119,554



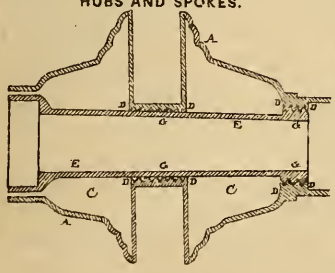
ABEL H. BARTLETT, SEWING-MACHINE
119,555

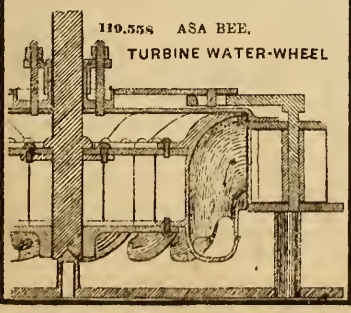


HENRY BEAGLE, JR.,
BACK-BAND HOOK
119,556



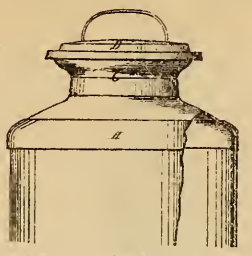
119,557 WILLIAM BEAUCHAMP.
HUBS AND SPOKES.



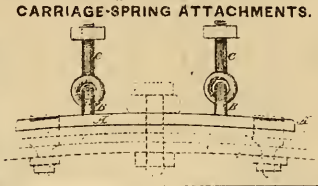


119,558 ASA BEE.
TURBINE WATER-WHEEL

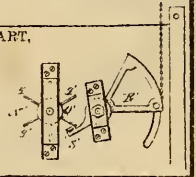
119,559 THOMAS M. BELL. MILK-CAN



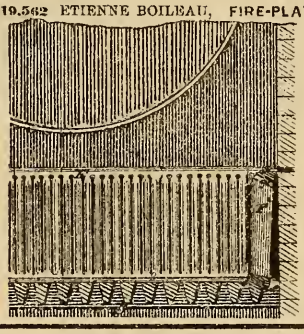
119,560 ORRIN E. BENNETT.
CARRIAGE-SPRING ATTACHMENTS.



ABRAHAM L. BOGART,
LIGHTING GAS-JETS
119,561

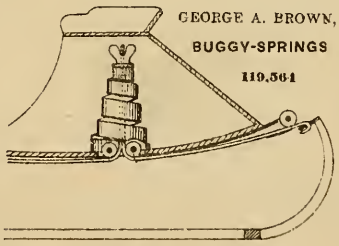


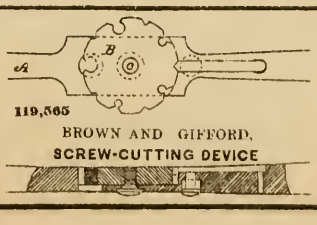
119,562 ETIENNE BOILEAU, FIRE-PLATE



119,563 THOMAS W. BRACHER.
ORNAMENTING LABELS

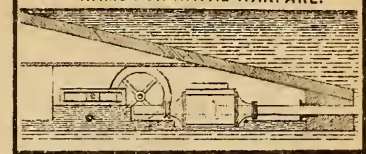
GEORGE A. BROWN,
BUGGY-SPRINGS
119,564



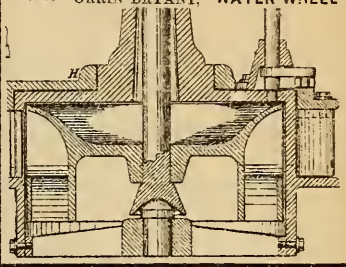


119,565
BROWN AND GIFFORD,
SCREW-CUTTING DEVICE

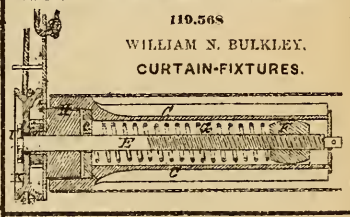
119,566 WILLIAM BROWN.
RAMS FOR NAVAL WARFARE.



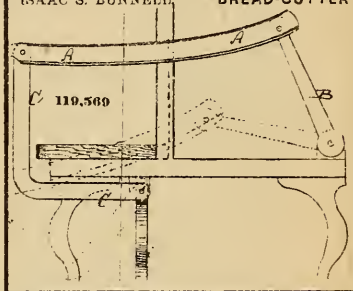
119,567 ORRIN BRYANT, WATER-WHEEL



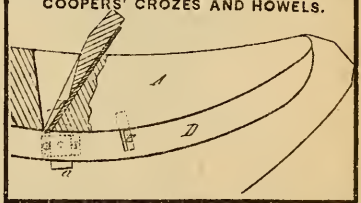
119,568
WILLIAM N. BULKLEY.
CURTAIN-FIXTURES.



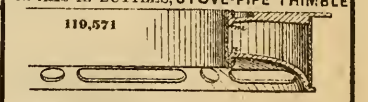
ISAAC S. BUNNELL, BREAD-CUTTER
119,569



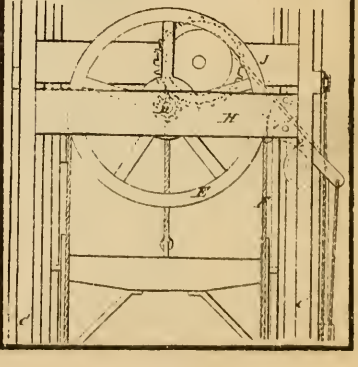
119,570 ANTHONY BUSENGER,
COOPERS' CROZES AND HOWELS.



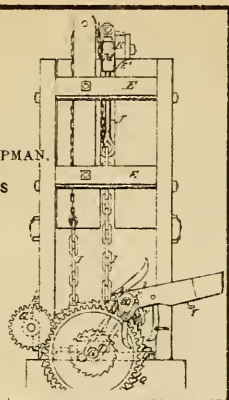
CEPHAS A. BUTTLES, STOVE-PIPE THIMBLE
119,571



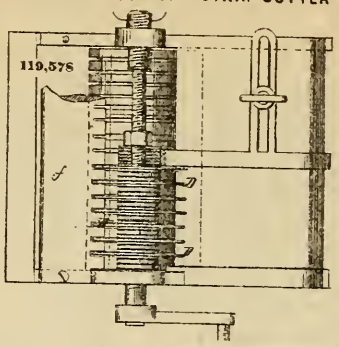
119,572 PATRICK BYRNE. ELEVATOR



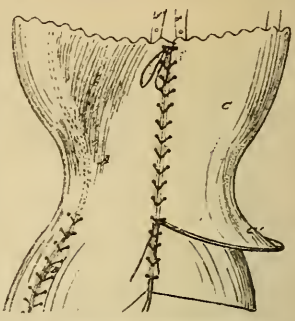
119,573
NATHAN CHAPMAN.
BALING-PRESS



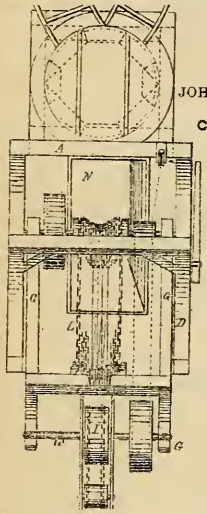
RICHARD CROCKER. STRAP-CUTTER
119,578



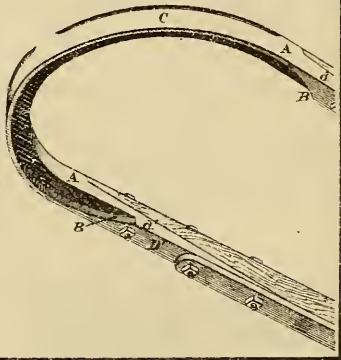
119,583 REBECCA DE BAUN. CORSET



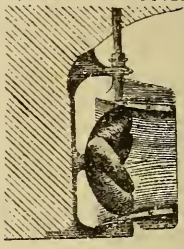
119,574
JOHN C. CLIFFORD.
COAL-ELEVATOR



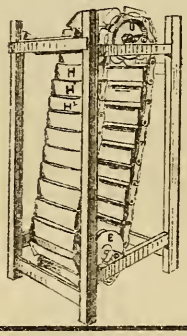
119,579 JOHN CURTIS. CARRIAGE



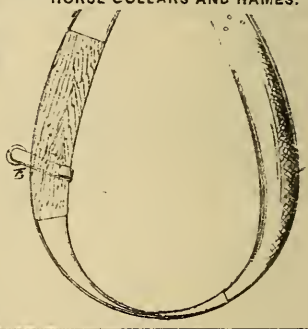
119,584 ALPHONSE DE MAN.
RUDDERS FOR VESSELS.



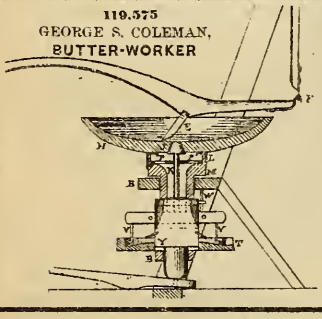
JOHN F. DANIELS. WATER-WHEEL
119,580



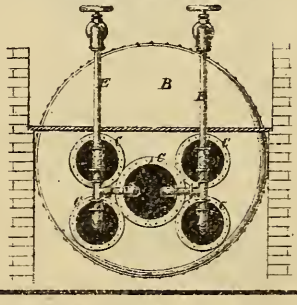
119,585 ALEXANDER DUNBAR.
HORSE-COLLARS AND HAMES.



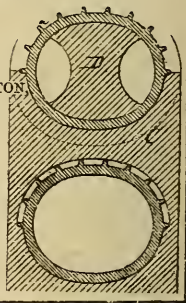
119,575
GEORGE S. COLEMAN.
BUTTER-WORKER



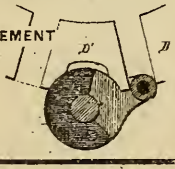
119,581 CHARLES DASENBROCK.
CLEANING BOILER-FLUES



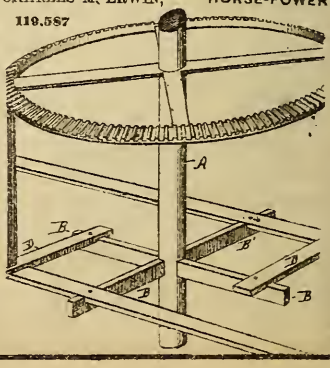
HENRY H. EDGERTON.
GAS-RETORT
119,586



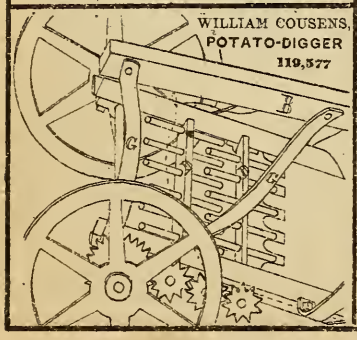
JOHN H. COOPER.
MECHANICAL MOVEMENT
119,576



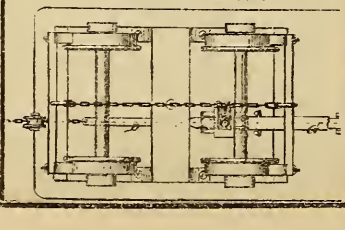
CHARLES M. ERWIN. HORSE-POWER
119,587



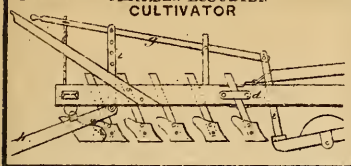
WILLIAM COUSENS.
POTATO-DIGGER
119,577



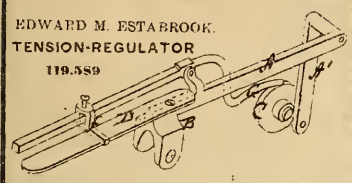
119,582 MARMADUKE F. DAUGHTREY
RAILWAY-CAR BRAKE



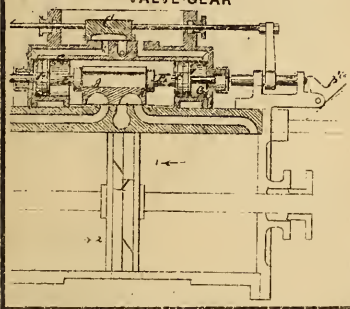
119,588 CHARLES ESCUDIER
CULTIVATOR



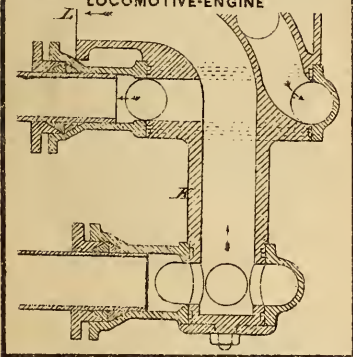
EDWARD M. ESTABROOK.
TENSION-REGULATOR
119,589



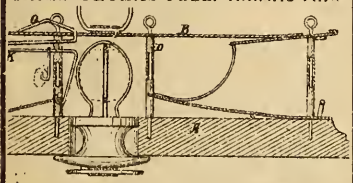
EVANS, THOMAS, AND HUNT.
119,590 VALVE-GEAR



119,591 ROBERT FRANCIS FAIRLIE,
LOCOMOTIVE-ENGINE

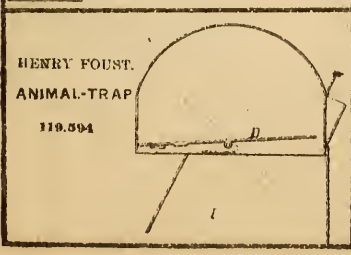


119,592 THOMAS FELL. ANIMAL-TRAP

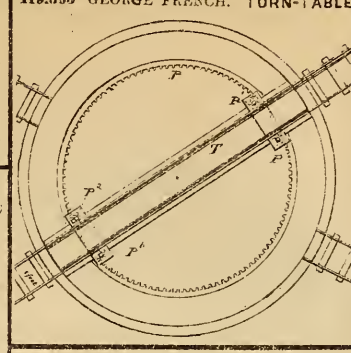


119,593 CHARLES H. FISHER,
TURN-TABLES FOR RAILWAYS.

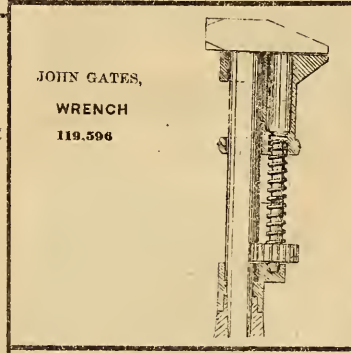
HENRY FOUST.
ANIMAL-TRAP
119,594



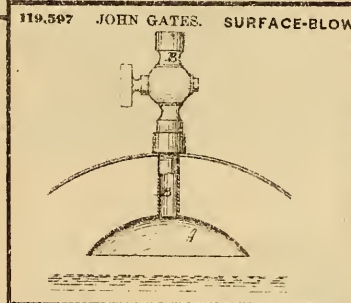
119,595 GEORGE FRENCH. TURN-TABLE



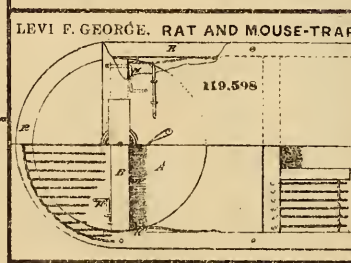
JOHN GATES,
WRENCH
119,596



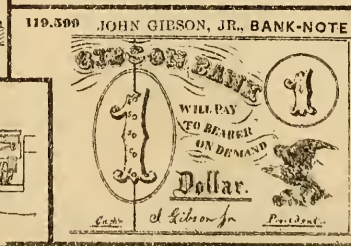
119,597 JOHN GATES. SURFACE-BLOW



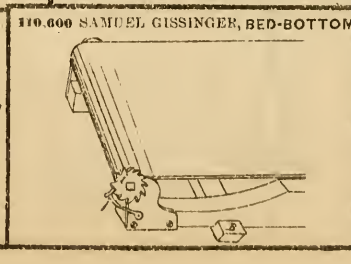
LEVI F. GEORGE. RAT AND MOUSE-TRAP
119,598



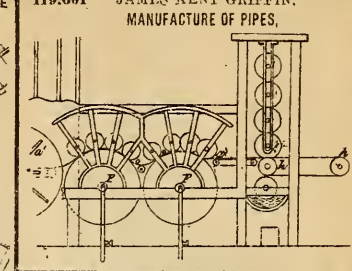
119,599 JOHN GIBSON, JR., BANK-NOTE



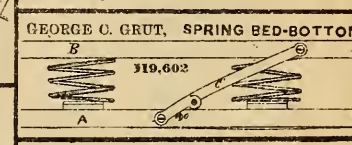
119,600 SAMUEL GISSINGER, BED-BOTTOM



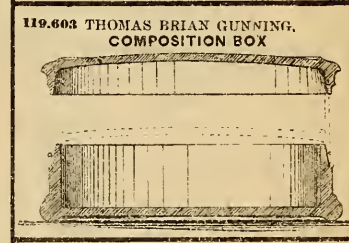
119,601 JAMES KENT GRIFFIN,
MANUFACTURE OF PIPES,



GEORGE C. GRUT, SPRING BED-BOTTOM
119,602

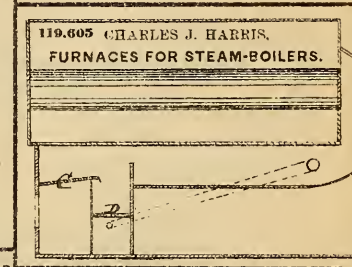


119,603 THOMAS BRIAN GUNNING,
COMPOSITION BOX

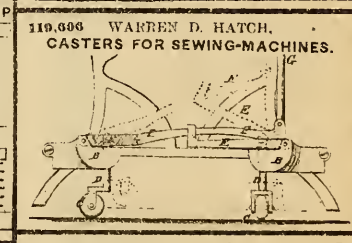


119,604
EDMUND S. HANNA,
PAPER WASHER

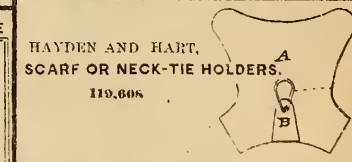
119,605 CHARLES J. HARRIS,
FURNACES FOR STEAM-BOILERS.



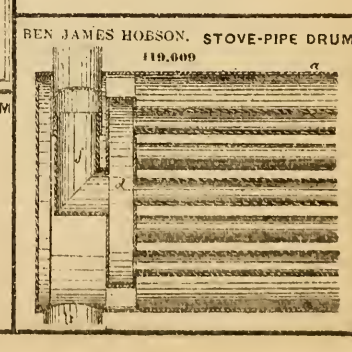
119,606 WARREN D. HATCH,
CASTERS FOR SEWING-MACHINES.



HAYDEN AND HART,
SCARF OR NECK-TIE HOLDERS.
119,608

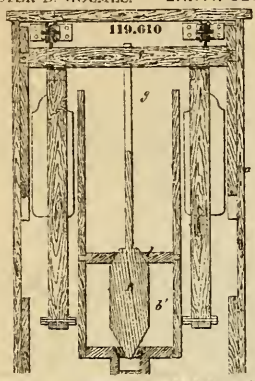


BEN JAMES HOBSON. STOVE-PIPE DRUM
119,609

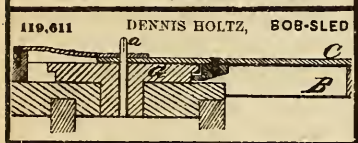


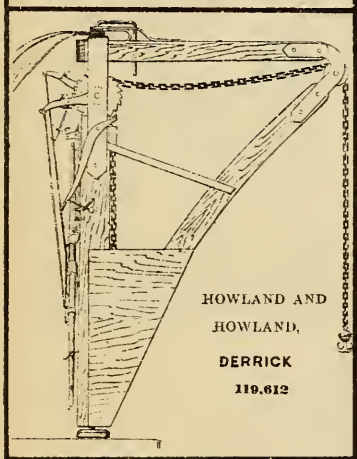
CHESTER D. HOLMES. EARTH-CLOSET

119,610



119,611 DENNIS HOLTZ, BOB-SLED



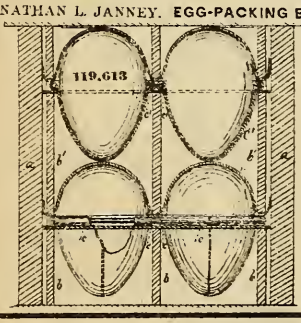


HOWLAND AND HOWLAND, DERRICK

119,612

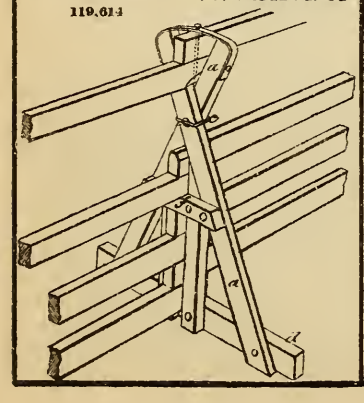
NATHAN L. JANNEY. EGG-PACKING BOX

119,613

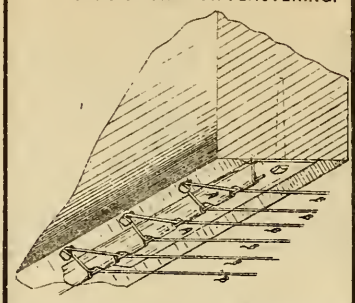


ABRAM JEWETT. PORTABLE FENCE

119,614

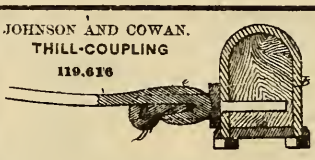


119,615 JAMES JOHN. FOUNDATIONS FOR PLASTERING.



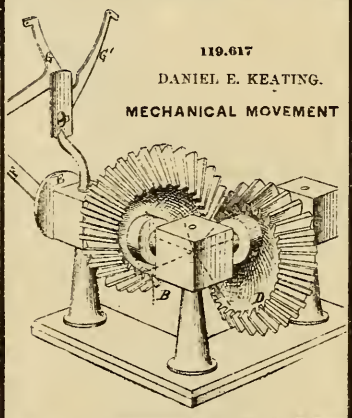
JOHNSON AND COWAN. THILL-COUPLING

119,616



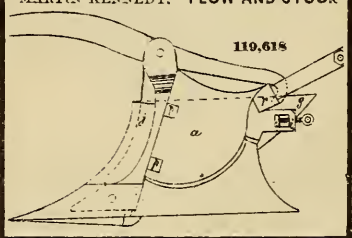
119,617

DANIEL E. KEATING. MECHANICAL MOVEMENT



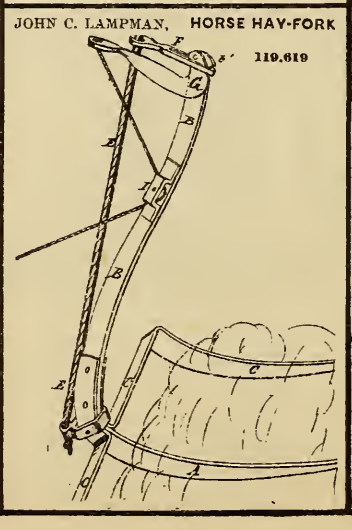
MARTIN KENNEDY. PLOW AND STOCK

119,618

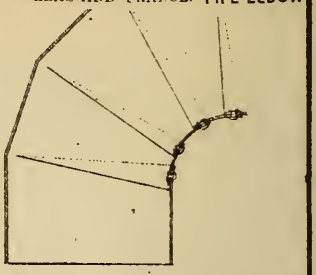


JOHN C. LAMPMAN. HORSE HAY-FORK

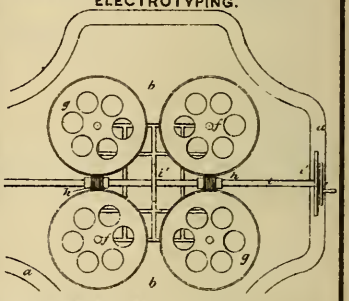
119,619



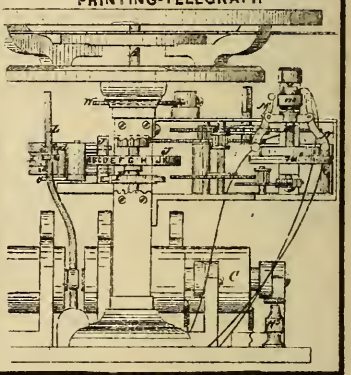
119,621 LEAS AND FRANCE. PIPE-ELBOW



119,622 WILLIAM AUGUSTUS LEGOO, ELECTROTYPING.

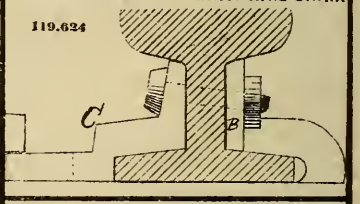


119,623 LINDSEY AND CURTISS, PRINTING-TELEGRAPH

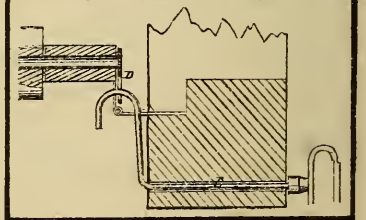


ALLEN P. LORD. RAILWAY RAIL-CHAIR

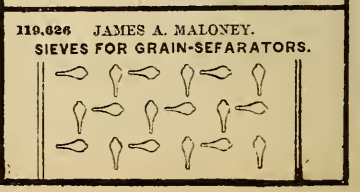
119,624



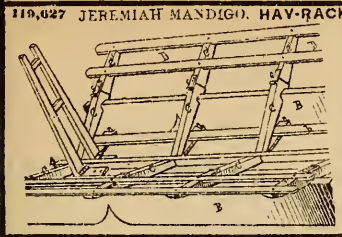
119,625 HENRY B. LUM, BLIND-SLAT OPERATOR.



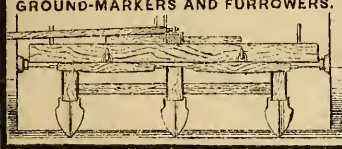
119,626 JAMES A. MALONEY. SIEVES FOR GRAIN-SEPARATORS.



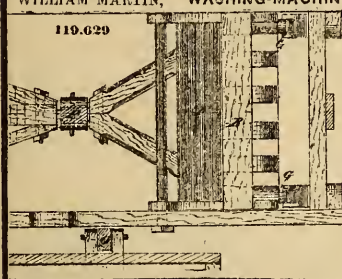
119,627 JEREMIAH MANDIGO. HAY-RACK



119,628 MARTIN, PARRISH, AND PETRIE. GROUND-MARKERS AND FURROWERS.



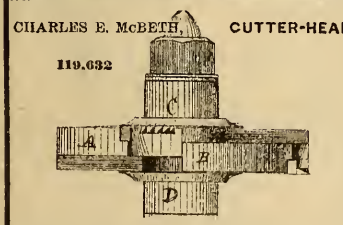
WILLIAM MARTIN, WASHING-MACHINE 119,629



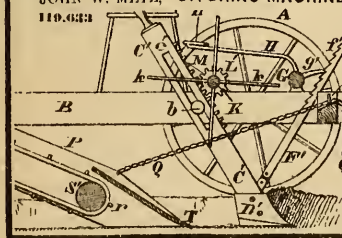
119,630 CORNELIUS E. MASTEN. ROCKET

119,631 CHARLES A. MAXFIELD. PAPER-BOX MACHINE

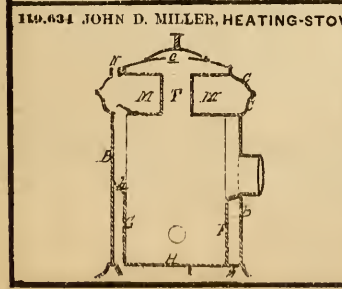
CHARLES E. McBETH, CUTTER-HEAD 119,632



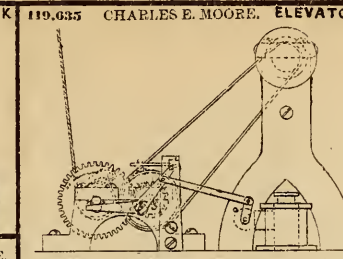
JOHN W. METZ, DITCHING-MACHINE 119,633



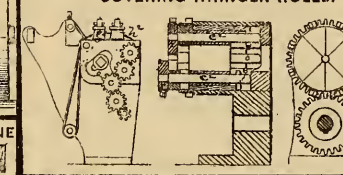
119,634 JOHN D. MILLER, HEATING-STOVE



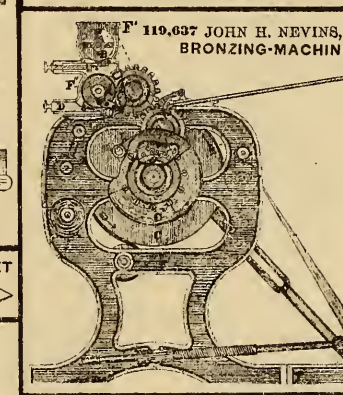
119,635 CHARLES E. MOORE. ELEVATOR



119,636 JOEL MOULTON COVERING WRINGER-ROLLS.

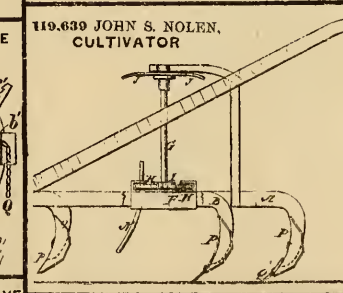


119,637 JOHN H. NEVINS, BRONZING-MACHINE

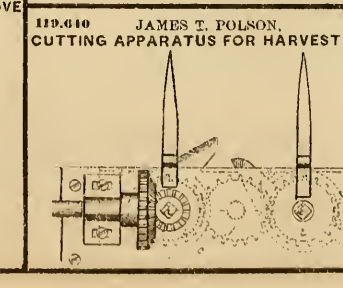


GORTON W. NICHOLS, EXTINGUISHING FIRES. 119,638

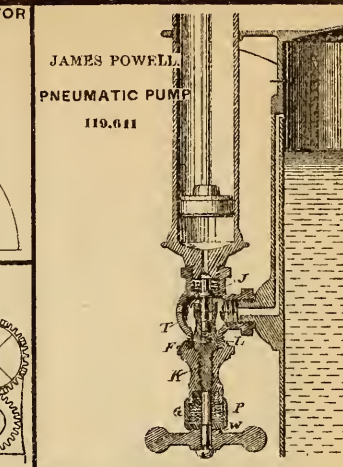
119,639 JOHN S. NOLEN, CULTIVATOR



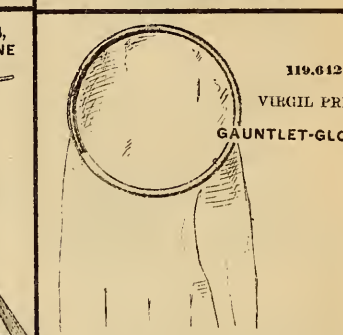
119,640 JAMES T. POLSON, CUTTING APPARATUS FOR HARVESTERS



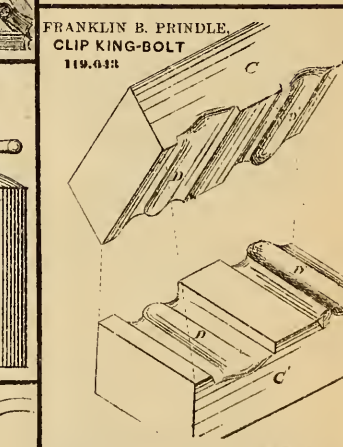
JAMES POWELL, PNEUMATIC PUMP 119,641



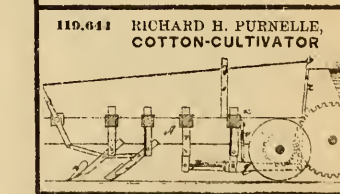
119,642 VIRGIL PRICE GAUNTLET-GLOVES.



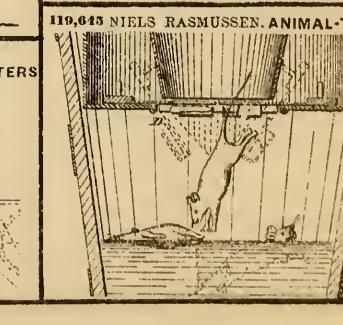
FRANKLIN B. PRINDLE, CLIP KING-BOLT 119,643



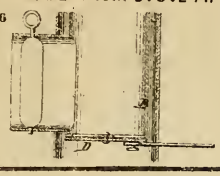
119,644 RICHARD H. PURNELLE, COTTON-CULTIVATOR



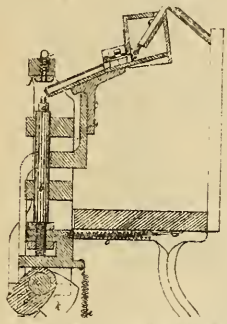
119,645 NIELS RASMUSSEN. ANIMAL-TRAP



THOMAS R. RENWICK, STOVE-PIPE DRUM
119,646



119,647 JOHN C. RHODES,
MACHINES FOR MAKING EYELETS.

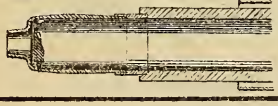


119,649
HENRY R. ROBBINS,

TRAPS FOR
WASH-BOILERS.

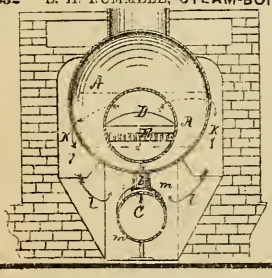
119,648
THOMAS C.
RICHARDS,
PICTURE-NAIL

119,650 JOHN ROBERTS. PUMP

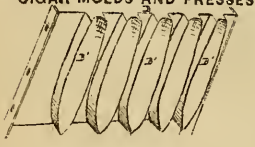


S. H. ROPER.
KNITTING-MACHINE NEEDLES.
119,651

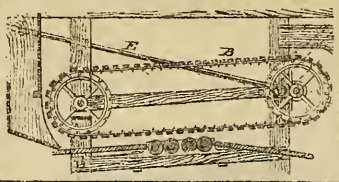
119,652 E. H. PÜMMELE, STEAM-BOILER



119,653 JOHN RYAN,
CIGAR-MOLDS AND PRESSES.



119,654 DANIEL SAGER, CORN-HUSKER



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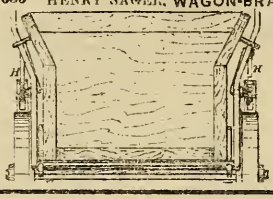

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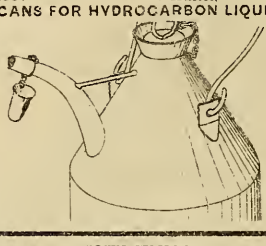
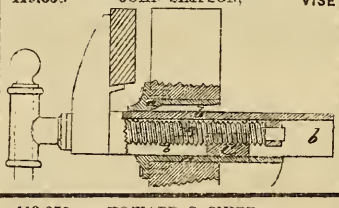
119,657 IRA W. SHALER,
CANS FOR HYDROCARBON LIQUIDS.

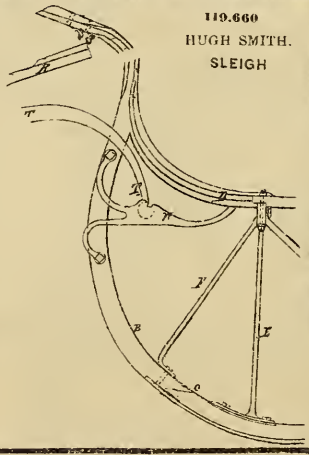


119,658 JOHN SIMPSON, VISE

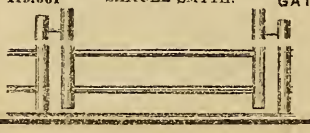


119,659 HOWARD C. SMITH.
CURRY-COMBS AND BRUSHES.

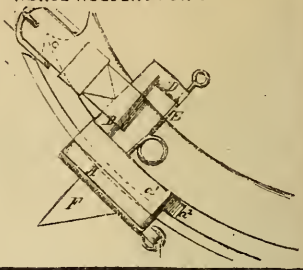
119,660
HUGH SMITH.
SLEIGH



119,661 SAMUEL SMYTH. GATE



119,662 HENRY A. SPRAGUE,
HORSE-HOLDERS FOR SLEIGHS.



119,663 THEODORE G. SPRINGER,
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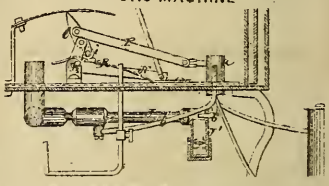

119,664 STEPHEN STEVENSON,
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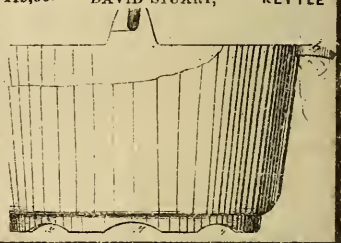
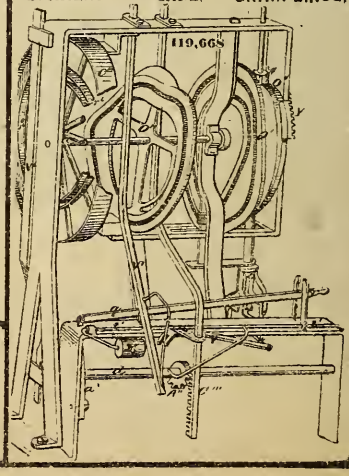
119,665 ROSWELL H. ST. JOHN,
HINGES FOR SEWING-MACHINES.

119,666 DAVID STUART, KETTLE

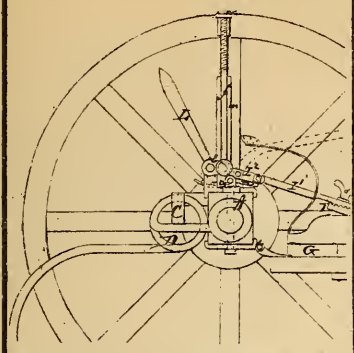


RUDOLPF STUCKWISCH, BRICK-MOLD
119,667

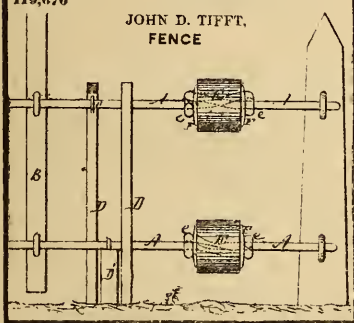
SUMMERS AND LANE, GRAIN-BINDER
119,668



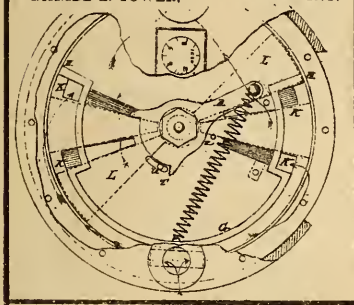
119,669 GEORGE SWEET, HORSE HAY-RAKE



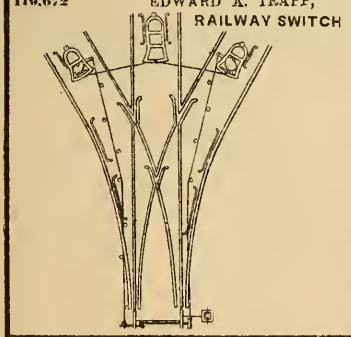
119,670 JOHN D. TIFFT, FENCE



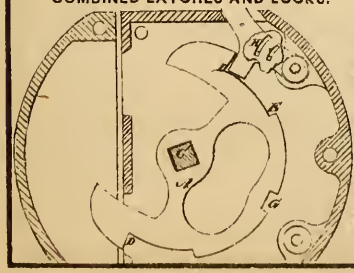
119,671 DANIEL L. TOWER, WATER-METERS.



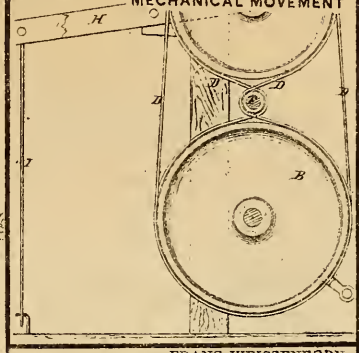
119,672 EDWARD A. TRAPP, RAILWAY SWITCH



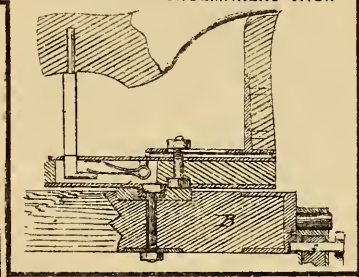
119,673 WARNER AND PAYNE, COMBINED LATCHES AND LOCKS.



119,674 WILLIAM WEAVER, MECHANICAL MOVEMENT

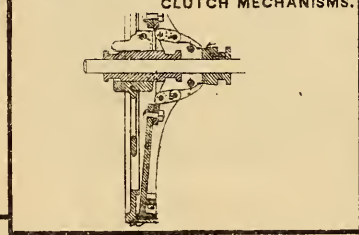


119,675 FRANZ WEISSENBORN, SHOEMAKERS' JACK



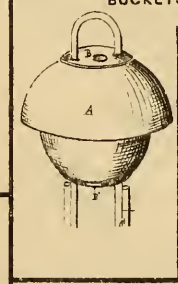
119,676 WILLIAM WESTLAKE, PLATFORMS FOR STOVES.

119,677 DAVID M. WESTON, CLUTCH MECHANISMS.

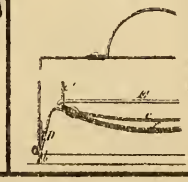


119,678 JOSEPH W. WHITE, SAWING FRET-HOLES IN FAN-STICKS.

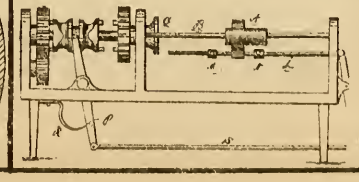
119,679 JOSEPH S. WILCOX, BUCKETS FOR CHAIN-PUMPS.



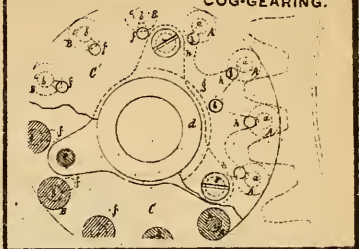
119,680 ABNER WILLSON, OVEN



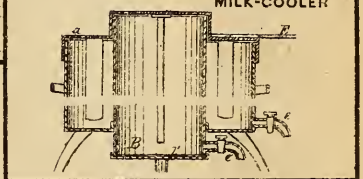
119,681 SHEFFIELD H. WRIGHT, THREADING BOLTS.



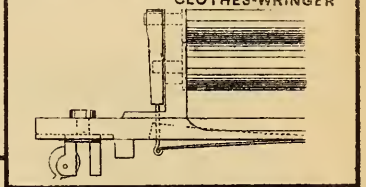
119,683 LUTHER R. FAUGHT, COG-GEARING.



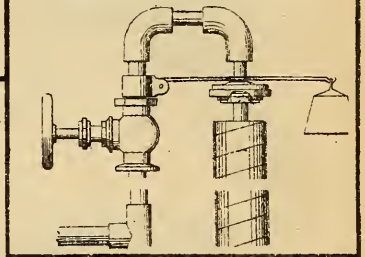
4,573 ANNA E. BALDWIN, MILK-COOLER



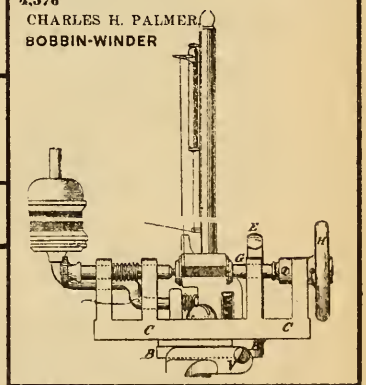
4,574 CUMMINGS AND SWALLOW, CLOTHES-WRINGER



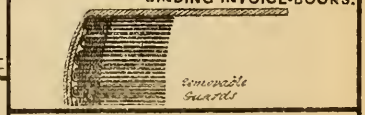
4,575 LUKE M. HEERY, STEAMING AND COOLING CLOTH.



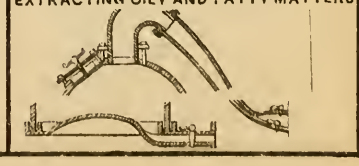
4,576 CHARLES H. PALMER, BOBBIN-WINDER



4,577 JOHN L. RILE, BINDING INVOICE-BOOKS.



4,578 LOUIS S. ROBBINS, EXTRACTING OILY AND FATTY MATTERS



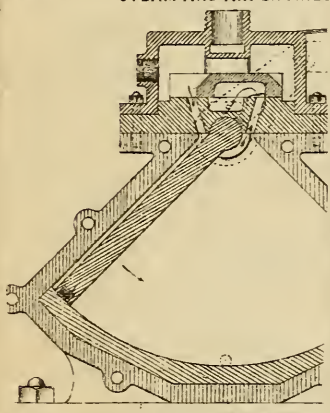
ILLUSTRATIONS OF PATENTS
ISSUED FROM

THE UNITED STATES PATENT OFFICE

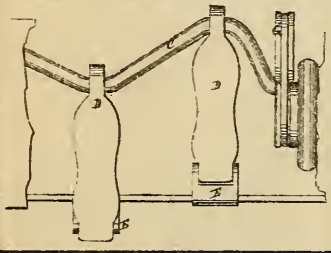
OCTOBER 10, 1871.

119,684 ISAAC H. ALEXANDER. TUGS FOR HARNESS.

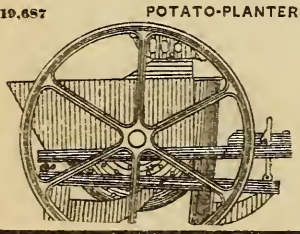
119,685 JOHN F. ALEXANDER. STEAM AND AIR-ENGINES.



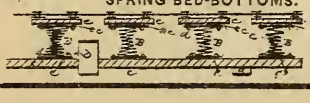
119,686 RICHARD N. ALLEN. SEWING-MACHINE TREADLES.



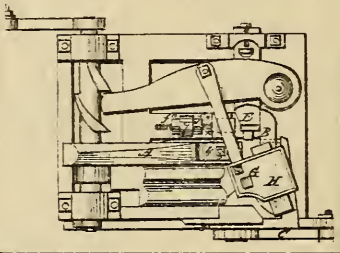
119,687 L. AUGUSTUS ASPINWALL POTATO-PLANTERS.



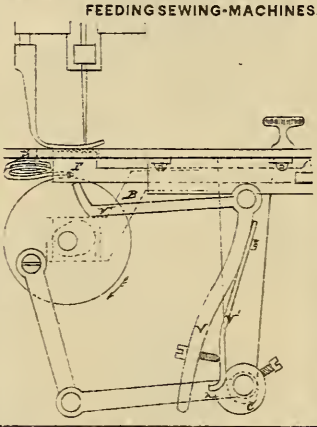
119,688 BALDWIN AND SEGAR. SPRING BED-BOTTOMS.



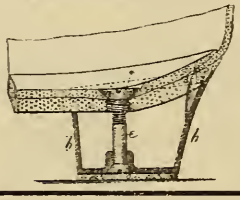
119,689 MOODY BELKNAP. SPIKE-MACHINES.



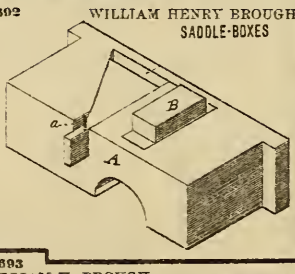
119,690 RICHARD BLEES. FEEDING SEWING-MACHINES.



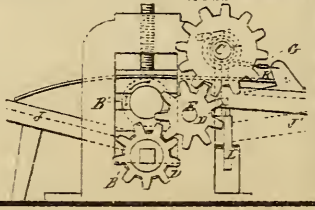
119,691 EDWARD HEELS FOR BOOTS AND SHOES.



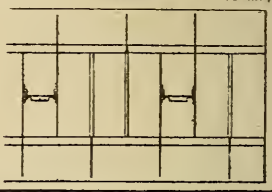
119,692 WILLIAM HENRY BROUGH. SADDLE-BOXES



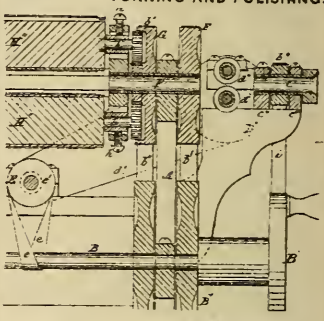
119,693 WILLIAM H. BROUGH. ROLLING-MILLS.



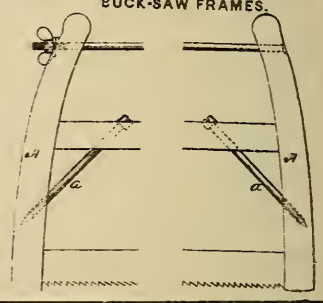
119,694 FRANCIS G. BUTLER. EVAPORATING AND CLARIFYING



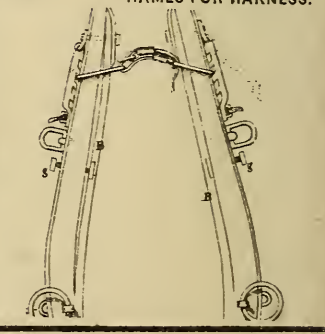
119,695 ROLLIN M. CLAPP. TURNING AND POLISHING.



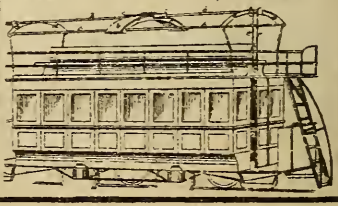
119,696 WILLIAM CLEMSON. BUCK-SAW FRAMES.



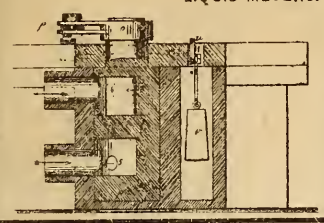
119,697 CHARLES H. DRURY. HAMES FOR HARNESS.



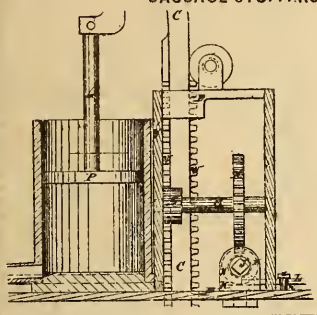
119,698 JOSEPH ELLISDON, CANOPIES.



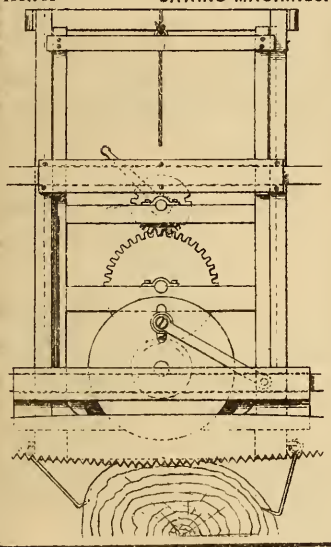
119,699 NICHOLAS FINCK. LIQUID-METERS.



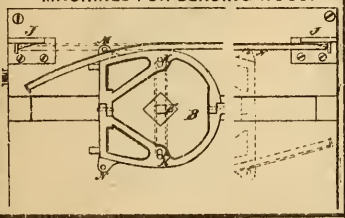
119,700 CHARLES FORSCHNER. SAUSAGE-STUFFERS.



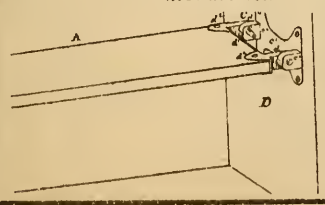
119,701 JOHN GROAT, SAWING-MACHINES.



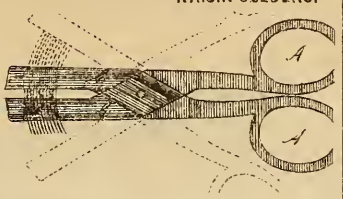
119,702 GUSTAF GUSTAFSON, MACHINES FOR BENDING WOOD.



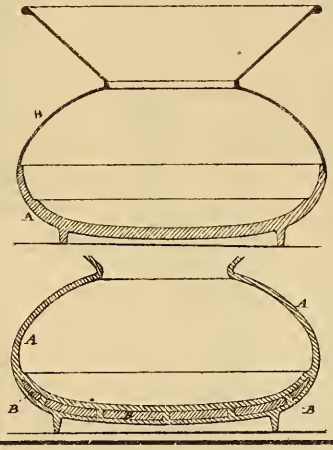
119,703 CHARLES C. HARDY. IRONING-TABLES.



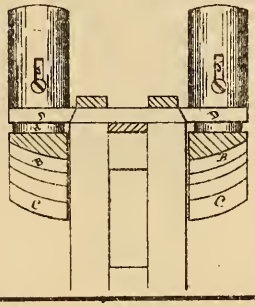
119,704 JACKSON HARRINGTON RAISIN-SEEDERS.



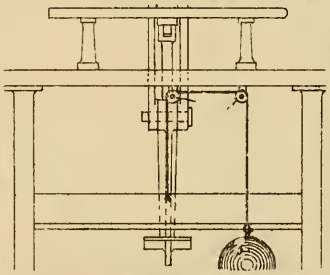
119,705 119,706 EUGENE A. HEATH, CUSPADORES.



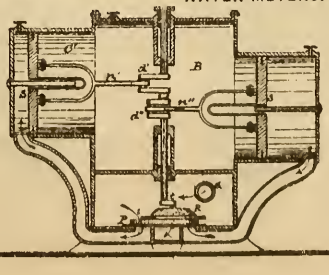
119,707 CHARLES H. HELMS. BOOT-AND-SHOE-HEEL POLISHERS.



119,708 PATRICK HOWE, CLOTH-PRESSING MACHINES.

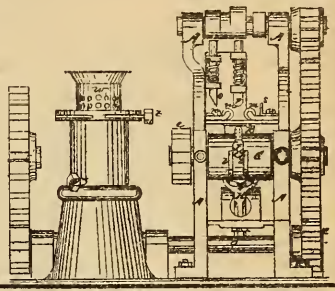


119,709 HYAM JACOB HYAMS. WATER-METERS.

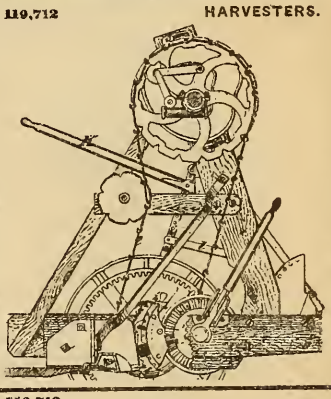


119,710 JOHN W. HYATT. INLAYING.

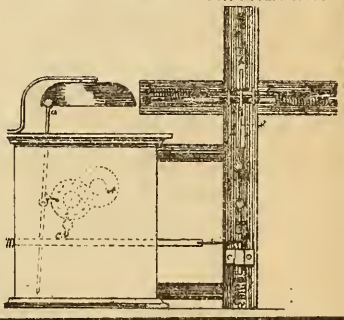
119,711 WESLEY MALICK. STAPLE-MACHINES.



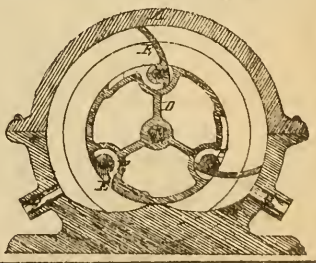
119,712 McCORMICK AND BAKER, HARVESTERS.



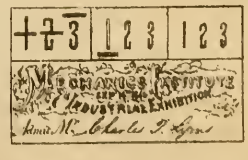
119,713 PITTS AND RUSSELL. FIRE-ALARMS.



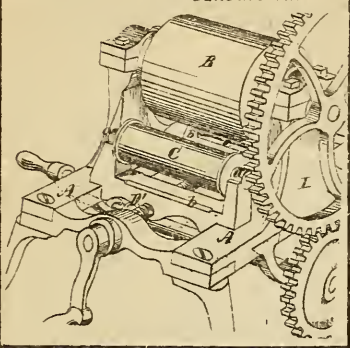
119,714 ARTHUR O'LEARY, WATER-METERS.



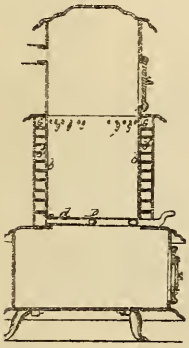
119,715 GEORGE PARDY IDENTIFYING-STAMPS.



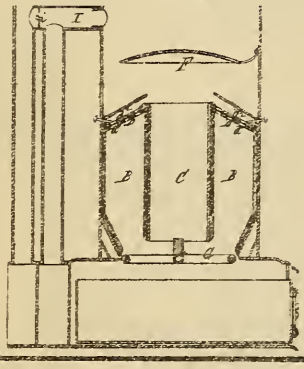
119,716 DOUGLAS F. POMEROY.
BENDING TIRES.



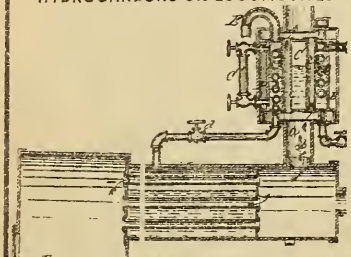
119,718 ALONZO C. RAND.
HEATING-STOVES.



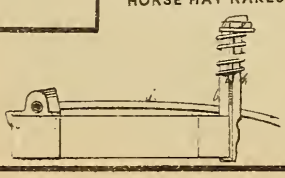
119,719



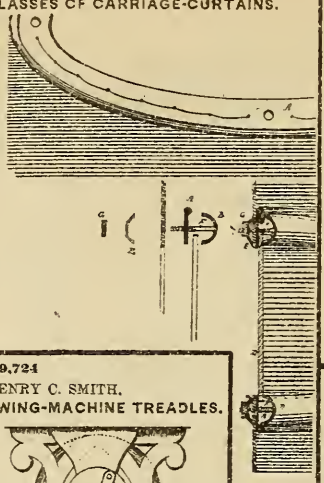
119,720 ALONZO C. RAND.
HYDROCARBONS ON LOCOMOTIVES



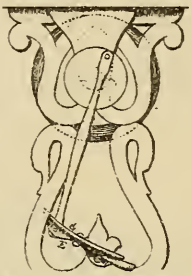
119,721 MARTIN C. REMINGTON.
HORSE HAY-RAKES.



119,722 WASHINGTON H. RHODES.
GLASSES OF CARRIAGE-CURTAINS.

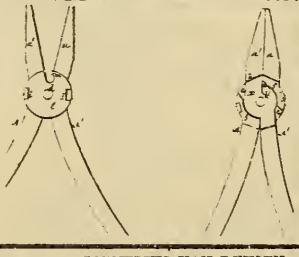


119,724 HENRY C. SMITH.
SEWING-MACHINE TREADLES.

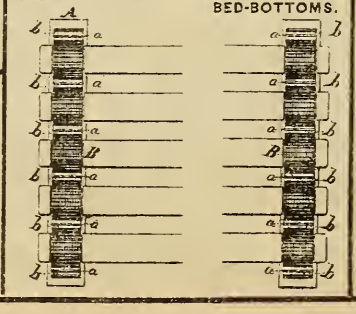


119,725 NATHAN THOMPSON.
PRESSING HOLLOW-WARE.

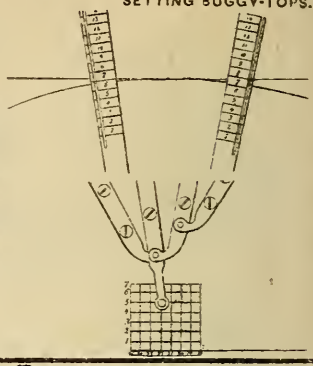
119,726 PLIERS. NATHAN THOMPSON.



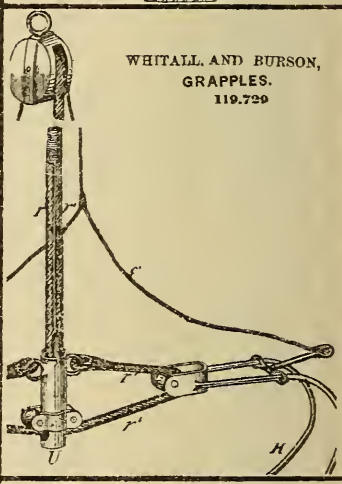
119,727 CORNELIUS VAN DEUSEN.
BED-BOTTOMS.



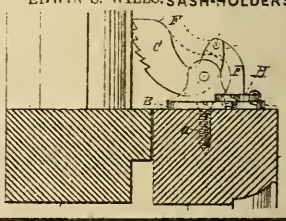
119,728 JOHN BAITTEE WELLER.
SETTING BUGGY-TOPS.



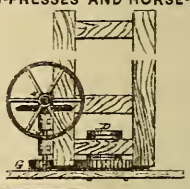
WHITALL AND BURSON,
GRAPPLES.
119,729



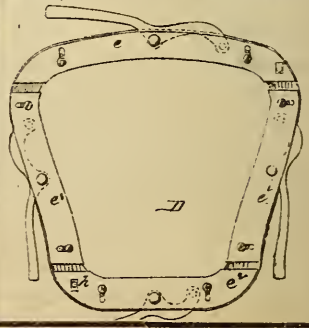
119,730 EDWIN S. WILLS. SASH-HOLDERS.



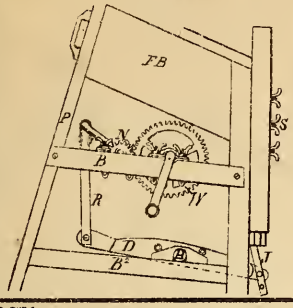
119,731 JAMES M. ALBERTSON,
COTTON-PRESSES AND HORSE-POWERS



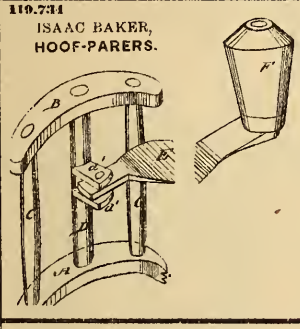
119,732 ALDRICH, AND SPAULDING
PRESSING CHAIR-SEATS INTO THEIR FRAMES.



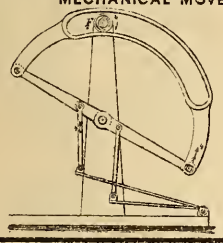
119,733 CHARLES C. G. ARMERLING,
VEGETABLE-CUTTERS.



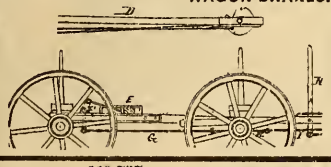
119,734 ISAAC BAKER,
HOOF-PARERS.



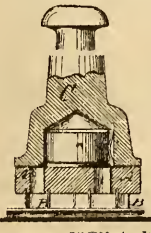
119,735 ALBERT BENNECKENDORF.
MECHANICAL MOVEMENTS.



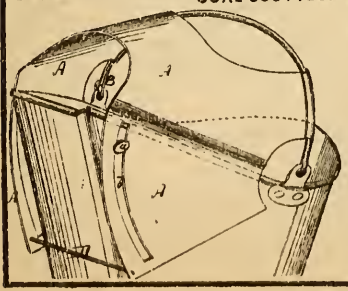
119,736 GEORGE M. BENNETT,
WAGON-BRAKES.



119,737 HENRY BOLTHOFF.
CUTTING STENCIL-PLATES.

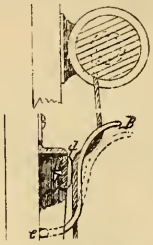


119,738 JOHN A. BRAGAW,
COAL-SCUTTLES.

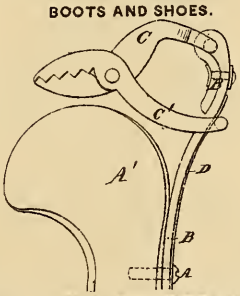


119,739 JAMES BRITTON.
SHEET-METAL KNOBS FOR TEA-POTS.

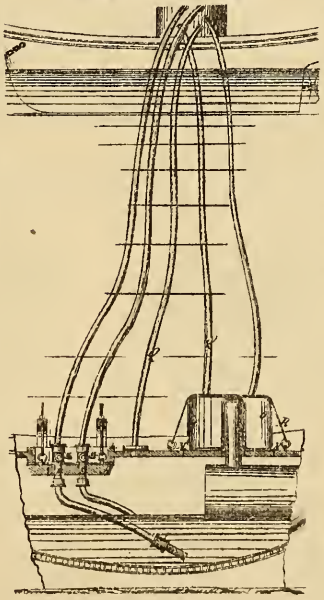
119,740 CURTAIN-FIXTURES.
NATHAN CAMPBELL,



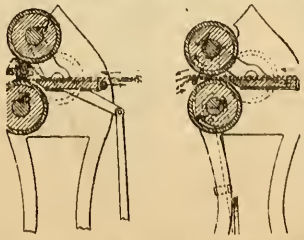
119,741 ORRIN R. CLARK,
BOOTS AND SHOES.



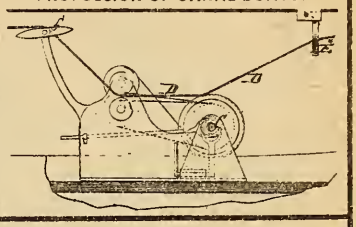
119,742 THOMAS COLLIER
RAISING SUNKEN VESSELS.



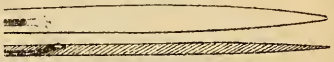
119,743 OWEN COOGAN,
BOARDING, PEBBLING, AND GLOSSING LEATHER



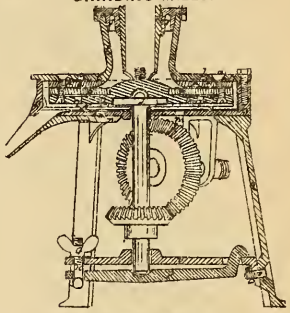
119,744 OWEN COOGAN,
PROPULSION OF CANAL-BOATS.



119,745 COLLIN M. COWARDIN,
BROOM-NEEDLES.



119,746 WILLIAM H. CULVER,
GRINDING-MILLS.



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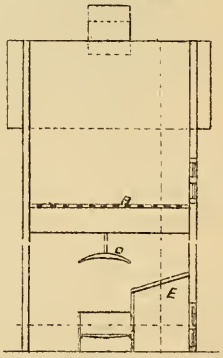
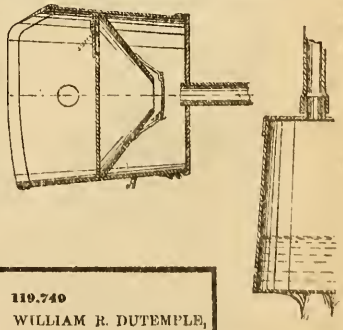
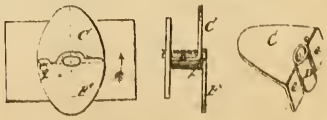
DRYING-ROOMS.



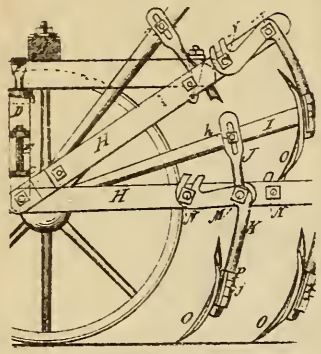
119,748 ETHELBERT E. DUNCANSON,
ADMINISTERING ANÆSTHETICS.



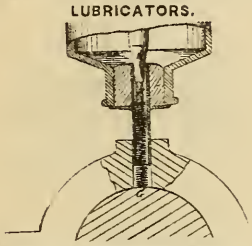
119,749 WILLIAM R. DUTEMPLE,
STUDS OR BUTTONS.



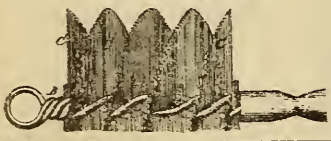
119,750 DAVID B. EBERLY,
CULTIVATORS.



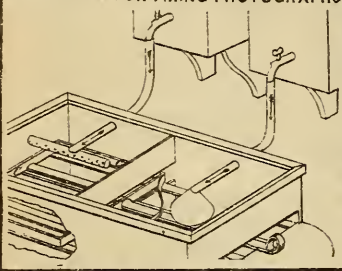
119,751 ERICK EHLIN,
LUBRICATORS.



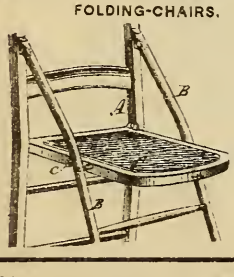
119,752 FRANCIS F. FIELD,
HELICAL WIRE-BRUSHES.



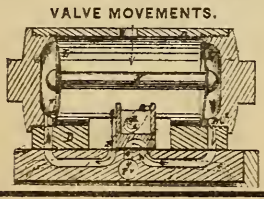
119,753 CHARLES A. GALE.
APPARATUS FOR FIXING PHOTOGRAPHS



119,754 WILLIAM GARDNER,
FOLDING-CHAIRS.



119,755 FREDERICK GLASSON.
VALVE MOVEMENTS.



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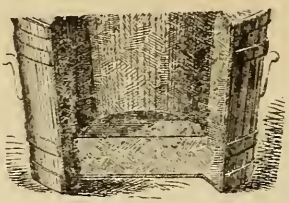
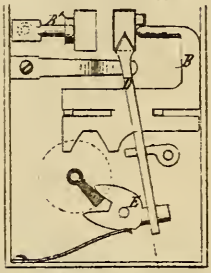
DEODORIZING EXCREMENTS.

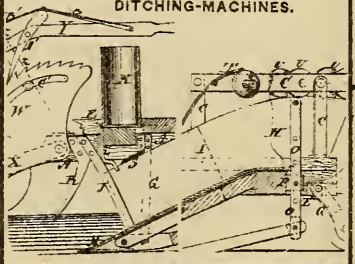


119,757 SAMUEL E. GRISCOM,
SEPARATING SLATE FROM COAL.

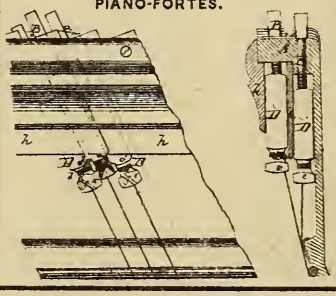
119,758 FLORENT GYSS,
DOOR-LOCKS.



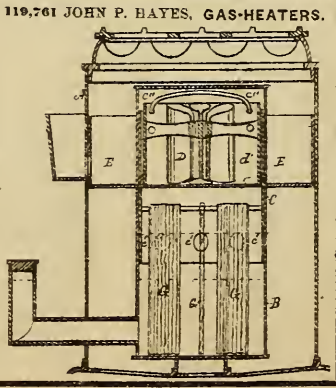
119,759 OSCAR F. HALE,
DITCHING-MACHINES.



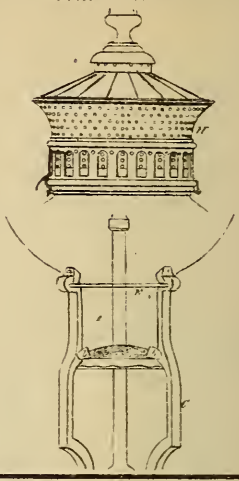
119,760 AZARIAH HORACE HASTINGS,
PIANO-FORTES.



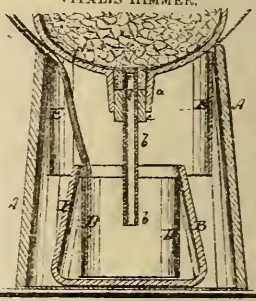
119,761 JOHN P. HAYES, GAS-HEATERS.



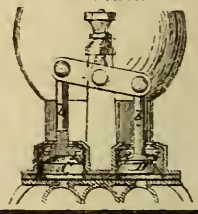
119,762 MARK ANTONY HEATH.
STREET-LANTERNS.



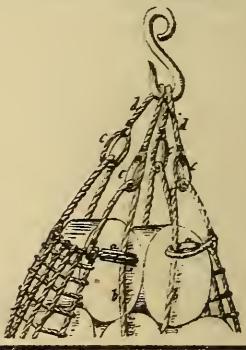
119,763 ELECTRIC BATTERIES.
VITALIS HIMMER.



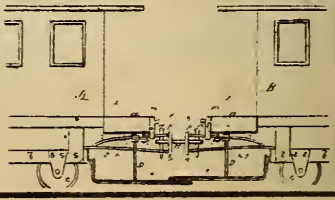
CHRISTOPHER HODGKINS.
119,764 WATER-RAMS.



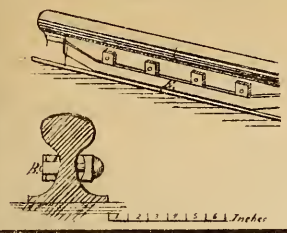
119,765 FRIEDRICH HOHORST,
SLINGS FOR PACKAGES.



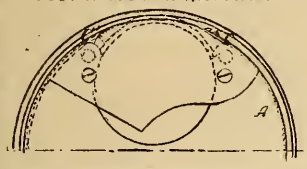
119,766 KATHARINE E. HOLMES,
RAILWAY-CAR SAFETY APPARATUS.



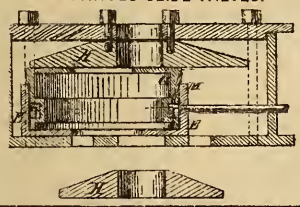
119,767 WILLIAM P. HORTON.
LOCK-NUTS FOR RAILWAY JOINTS.



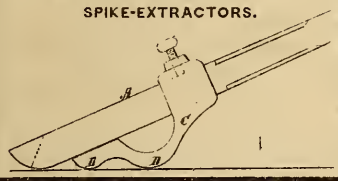
119,768 GEORGE HUNT,
DUST-RINGS FOR WATCHES.



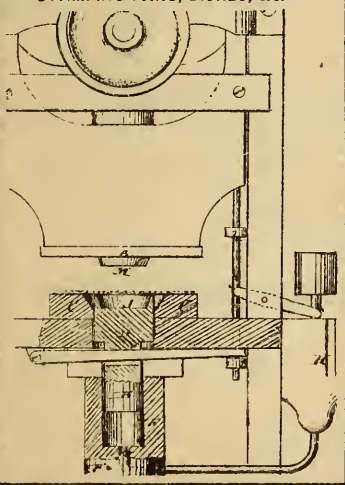
119,769 CHARLES H. HUTCHINSON,
BALANCED SLIDE-VALVES.



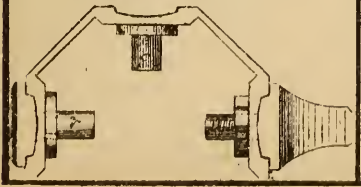
119,770 WILLIAM H. IVES,
SPIKE-EXTRACTORS.



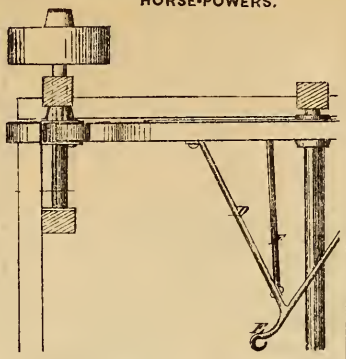
119,771 JOHN B. JONES,
STAMPING PANS, DISHES, &c.



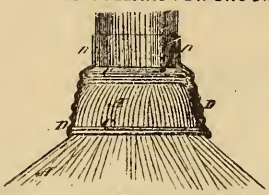
119,773 JOSEPH KINTZ.
CHANDELIER CENTERS.



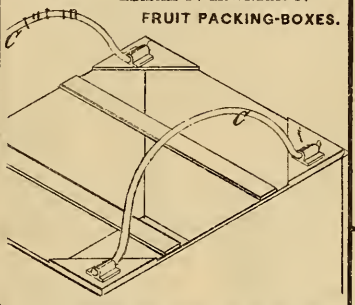
119,774 JAMES W. KNOX,
HORSE-POWERS.



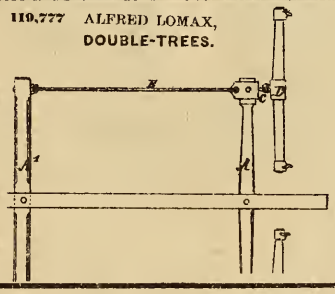
119,775 HENRY A. LEE,
FLANGED COLLARS FOR BROOM



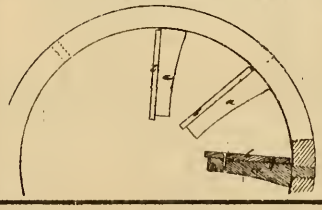
119,776 ELISHA D. LEWELLING,
FRUIT PACKING-BOXES.



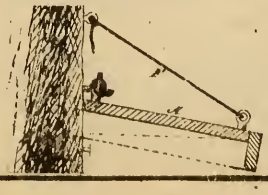
119,777 ALFRED LOMAX,
DOUBLE-TREES.



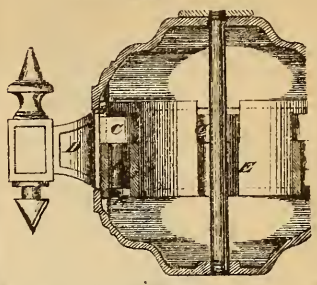
119,778 PHILO LULL,
TANNERS' RINSING-WHEELS.



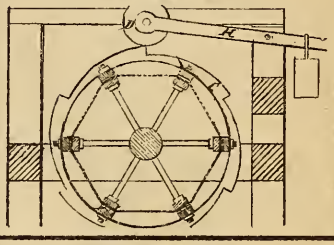
119,779 ROBERT MARSHALL,
SAP-BUCKET COVERS.



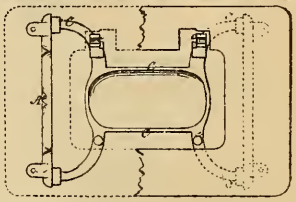
119,780 JOHN MEAH,
CHANDELIERS CENTERS.



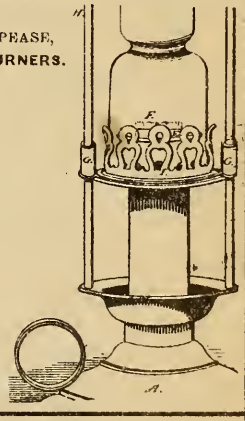
119,783 THOMAS G. MORGAN,
FLOUR-BOLTS.



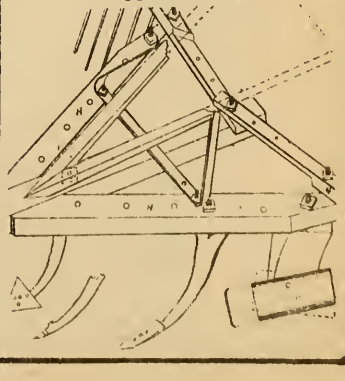
119,784 CHARLES PARHAM,
MOUNTING SEWING-MACHINES UPON THEIR TABLES.



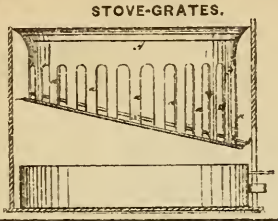
119,785
JULIUS A. PEASE,
CANDLE-BURNERS.



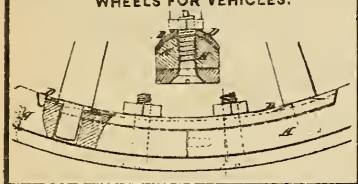
119,786 FRANCIS L. PERRY.
CULTIVATORS.



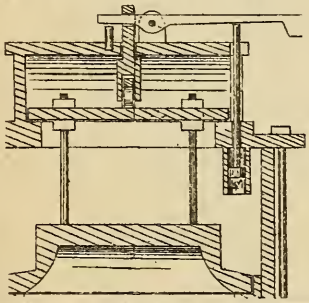
119,787 JOHN A. PRICE,
STOVE-GRATES.



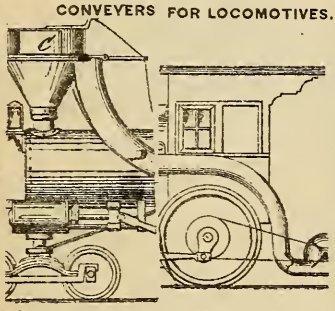
119,788 WILLIAM F. RAY,
WHEELS FOR VEHICLES.



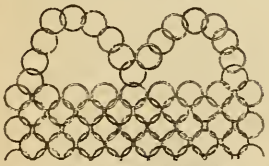
JOHN RIGBY AND JOSEPH HOLT,
119,789 BALANCED SLIDE-VALVES.



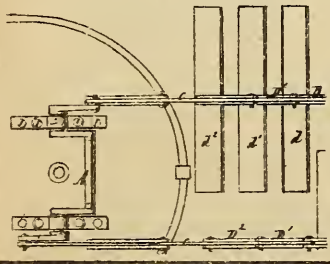
119,790 AUGUSTA M. RODGERS,
CONVEYERS FOR LOCOMOTIVES.



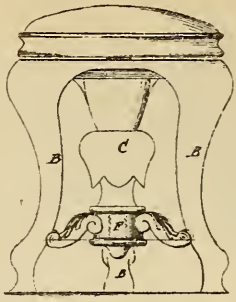
119,791 GOTTLIEB SCHERER,
PAN-SCRAPERS.



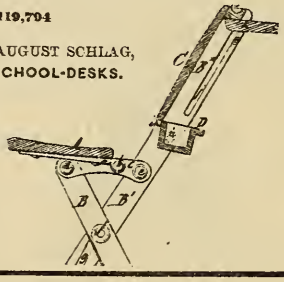
119,792 CORNELIUS SCHILLING,
PROPULSION OF CANAL-BOATS.



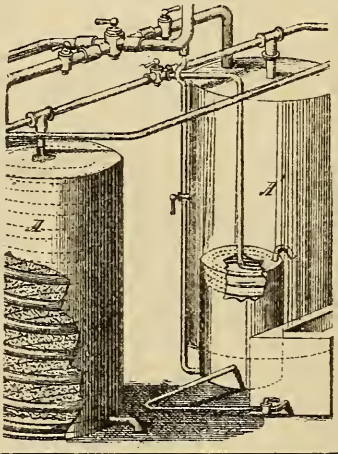
119,793 CHARLES A. SCHINDLER,
PIANO-STOOLS.



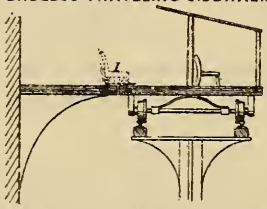
119,794
AUGUST SCHLAG,
SCHOOL-DESKS.



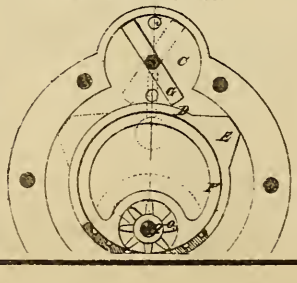
119,795 CHARLES A. SEELY,
ICE-MACHINES.



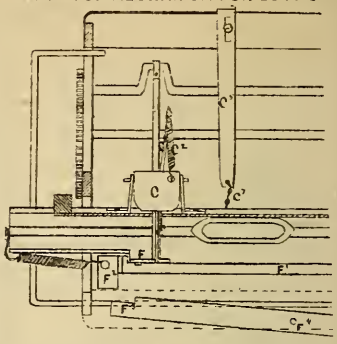
119,796 ALFRED SPEER,
ENDLESS-TRAVELING SIDEWALKS.



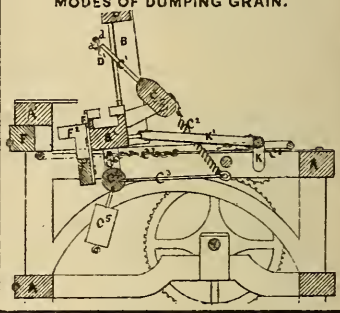
119,797 JOHN STOTT,
ROTARY ENGINES.



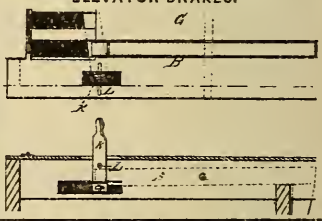
119,798 JOHN J. SWITZER,
WEFT-STOP MECHANISM FOR LOOMS.



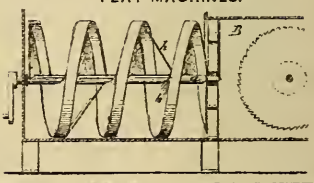
119,799 JOHN SYPES,
MODES OF DUMPING GRAIN.



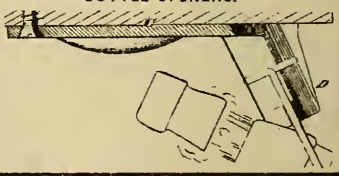
119,800 THEODORE THORN,
ELEVATOR-BRAKES.



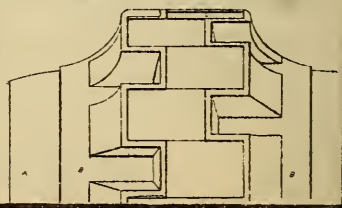
119,801 WILLIAM S. TISDALE,
PEAT-MACHINES.



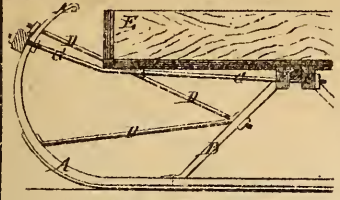
119,802 CHARLES B. TRIMBLE,
BOTTLE-OPENERS.



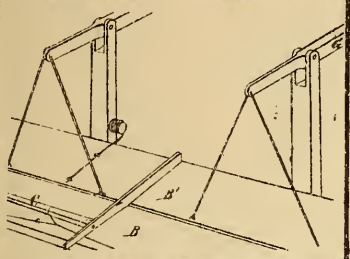
119,803 OLIVER VANORMAN,
HUBS FOR VEHICLES' WHEELS.



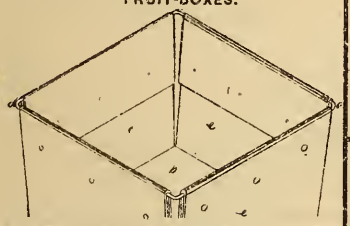
119,804 RICE WEBB, SLEIGHS.



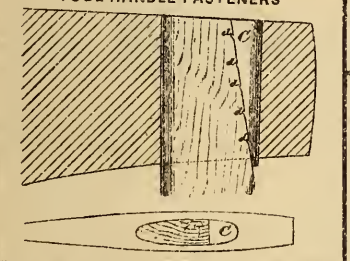
119,805 JAMES WEED,
SHUTTERS FOR HOT-BEDS, &c.



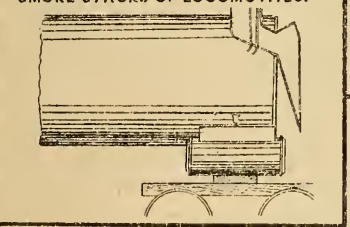
119,806 CHARLES W. WESTON,
FRUIT-BOXES.



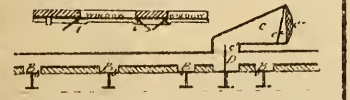
119,807 WILBUR AND HURLBUT,
TOOL-HANDLE FASTENERS



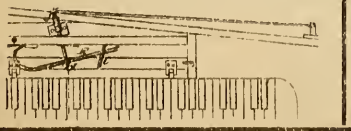
119,808 EDWIN H. WINCHELL,
SMOKE-STACKS OF LOCOMOTIVES.



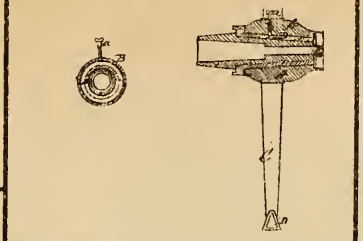
119,809 EDWIN H. WINCHELL,
RAILROAD-CAR VENTILATORS.



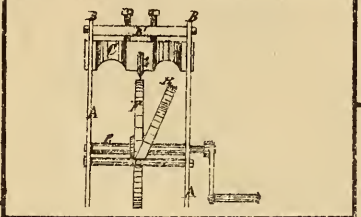
119,810 ALTENBURG AND LAMBRIX,
APPARATUS FOR TURNING MUSIC.



119,811 EPHRAIM BALL,
WHEELS FOR VEHICLES.

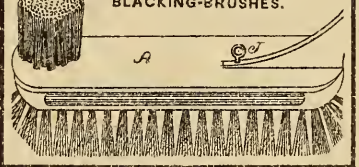


119,813 BELA S. BISHOP,
MACHINES FOR CURVING SAW-BLADES.

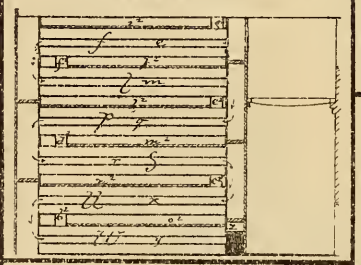


CHARLES C. BLAKEMORE,
FELLING ATTACHMENTS FOR
119,814 SEWING-MACHINES.

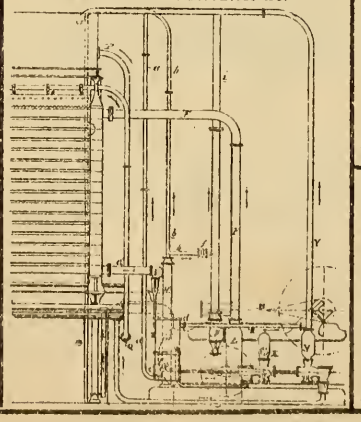
119,815 CHARLES BRINTZINGHOFFER,
BLACKING-BRUSHES.



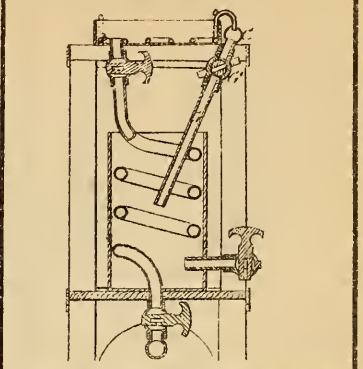
119,816
GOTTLIEB F. BURKHARDT,
STEAM-HEATERS.



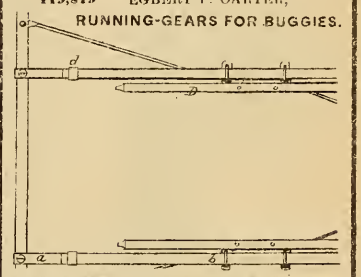
119,817 ALFRED CAIL,
STEAM-CONDENSERS, &c.



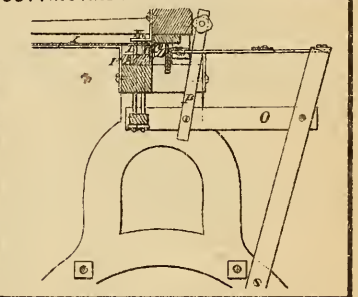
AMBROSE E. CAMP AND CHARLES L. REID
119,818 LARD-COOLERS.



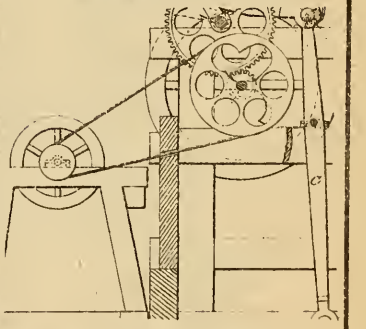
119,819 EGBERT P. CARTER,
RUNNING-GEARS FOR BUGGIES.



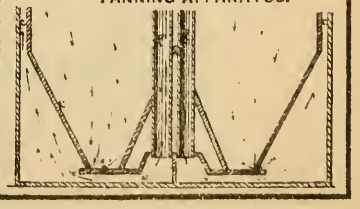
119,820 CHARLES B. CHOATE,
CUTTING AND PUNCHING SHINGLE-BANDS.



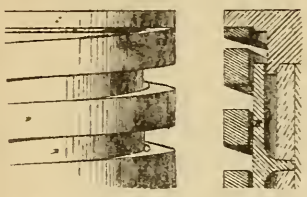
119,821 ALEXANDER CLARK,
MECHANICAL MOVEMENTS.



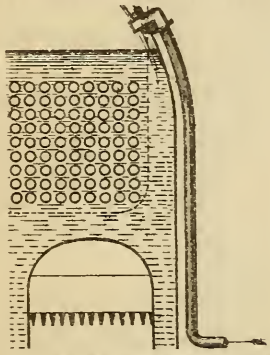
119,822 JOSEPH W. COBURN,
TANNING APPARATUS.



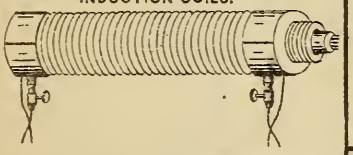
119,823 JOHN W. COCHRAN.
RAILWAY-CAR SPRINGS.



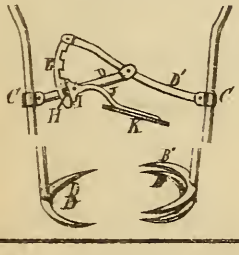
119,824 JONATHAN CONE.
FEED-PIPES OF STEAM-BOILERS.



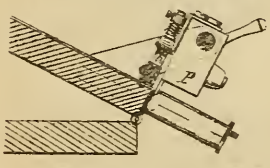
DANIEL McFARLAND COOK.
119,825 INDUCTION-COILS.



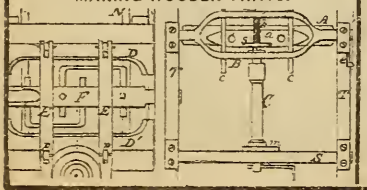
119,826 JOHN F. COPPOCK.
ANIMAL-TRAPS.



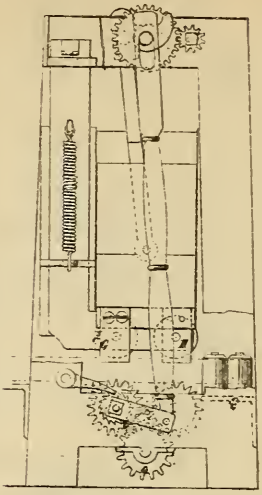
119,827 EDWIN COWLES.
PAPER-CUTTING MACHINES.



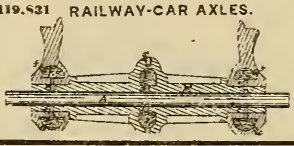
119,828 DANIEL M. CUMMINGS.
MAKING WOODEN TRAYS.



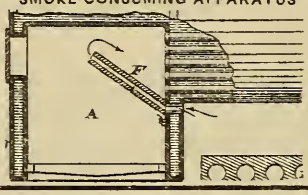
119,829 JOHN P. DIRNER.



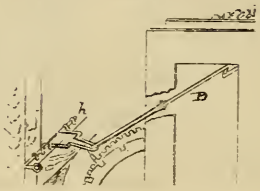
ELLIS DOTY AND GEORGE W. MILTIMORE.
119,831 RAILWAY-CAR AXLES.



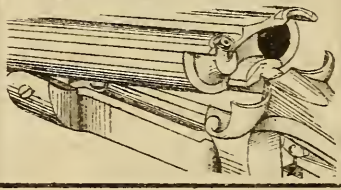
119,832 JOHN DURAND,
SMOKE-CONSUMING APPARATUS



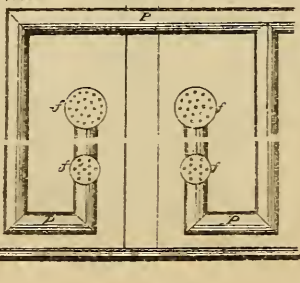
119,833 SAMUEL F. ESTELL.
PROGRAMME-CLOCKS.



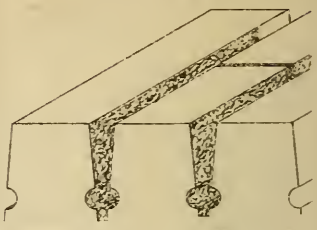
119,834 GEORGE H. FERRISS.
BREECH-LOADING FIRE-ARMS.



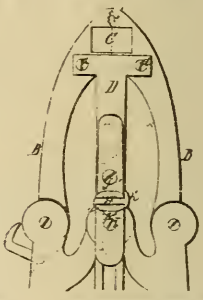
CHARLES G. FISHER.
119,835 STEAM-BOILERS.



119,836 MAURICE FITZGIBBONS.
WOOD PAVEMENTS.

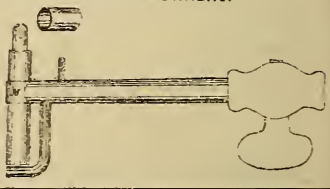


119,837 SAMUEL J. FORBES,
BLACKSMITHS' TOOLS.

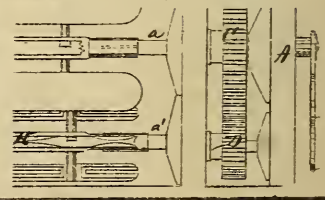


DAVID FRANK AND THEOPHILUS SNYDER.
119,838 PIPE-WRENCHES.

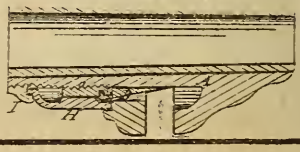
119,839 GATES AND FRITCHEY.
VAPOR-BURNERS.



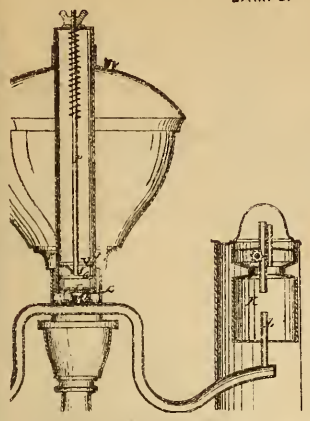
119,840 JOHN GIRE, CHURNS.



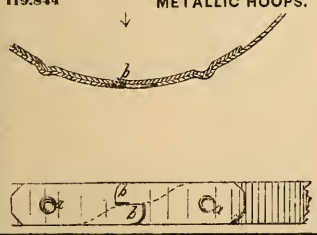
119,841 JOSEPH S. GRAVES.
CARRIAGE-WHEELS.



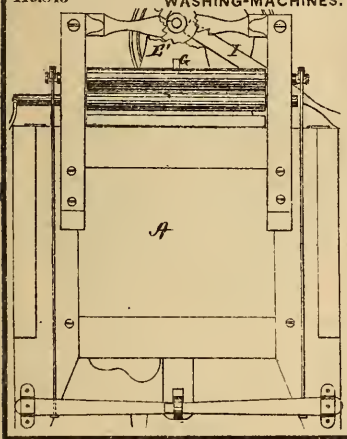
119,842 FRANKLIN T. GRIMES. LAMPS.



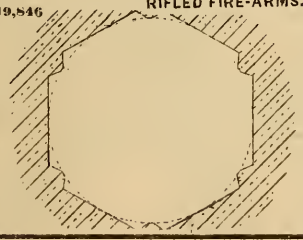
119,844 EDGAR C. HAMLIN. METALLIC HOOPS.



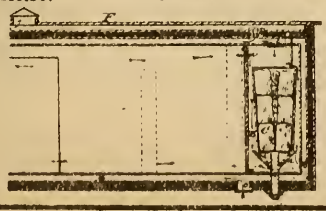
119,845 JAMES W. HAMPTON. WASHING-MACHINES.



ALEXANDER HENRY. RIFLED FIRE-ARMS. 119,846



CLAUDIUS L. HOAG AND ELLSWORTH ELY 119,847 REFRIGERATING-CARS.



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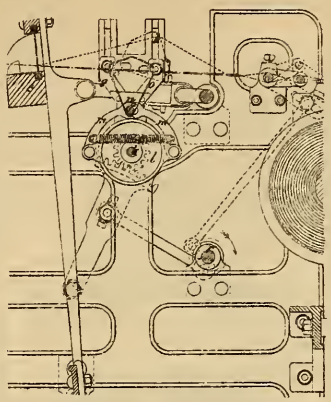

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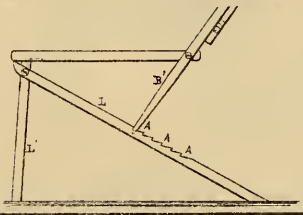

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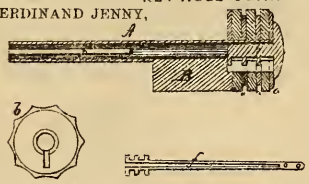
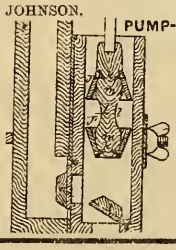
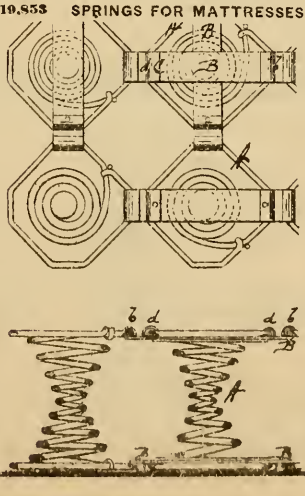


119,852 DANIEL JOHNSON. PUMP-PISTONS.



WILLIAM B. JUDSON. 119,853 SPRINGS FOR MATTRESSES.



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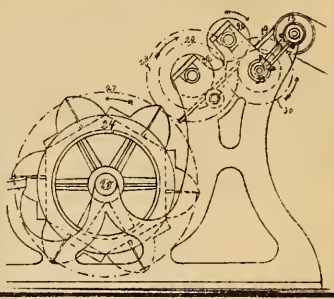
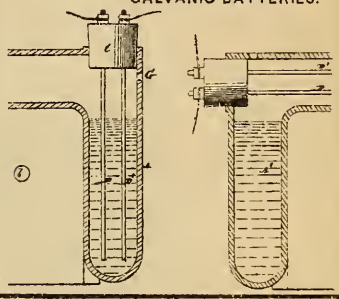
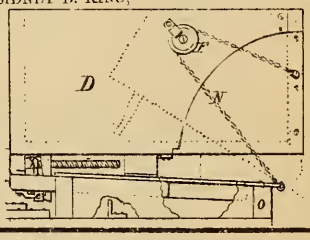


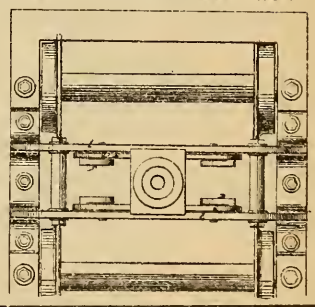
119,855 JEROME KIDDER. GALVANIC BATTERIES.



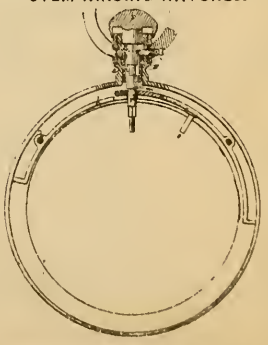
119,856 SIDNEY D. KING. DUMPING-CARS.



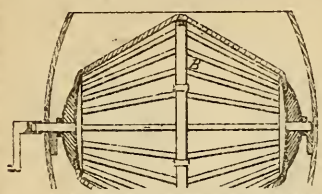
119,857 CHANCY H. LATHROP. TRUCKS FOR LOCOMOTIVE ENGINES.



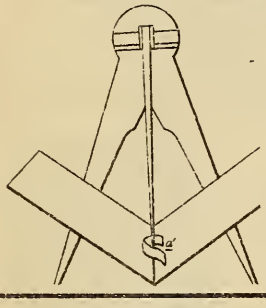
119,858 JACQUES LAURENT. STEM-WINDING WATCHES.



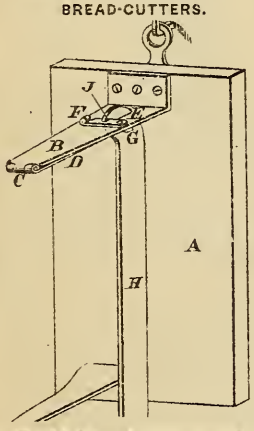
119,859 JOHN H. LEE,
WASHING-MACHINES.



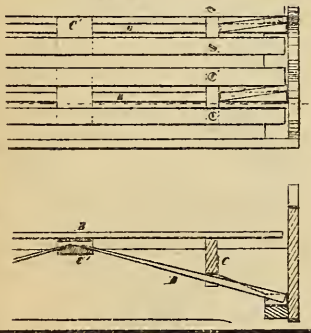
119,860 JOHN A. LEHMAN
BREAST-PIN FASTENERS.



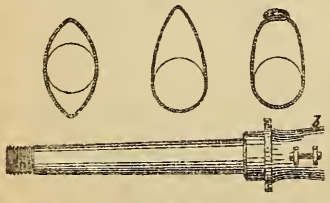
119,861 CARL LEMKE.
BREAD-CUTTERS.



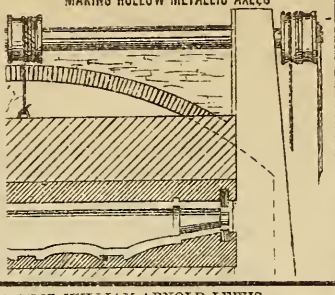
119,862 GEORGE D. LEONARD,
BED-BOTTOMS.



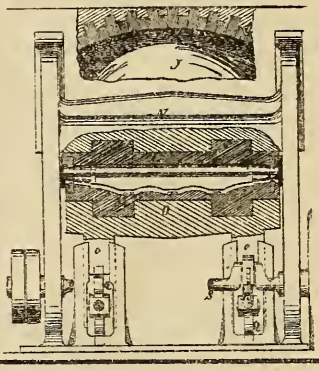
119,863 WILLIAM A. LEWIS,
HOLLOW AXLES FOR WAGONS



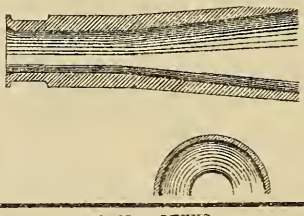
119,864 WILLIAM A. LEWIS,
MAKING HOLLOW METALLIC AXLES



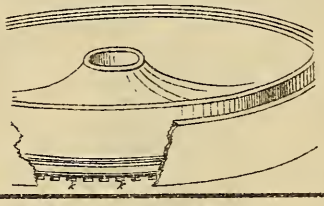
119,865 WILLIAM ARNOLD LEWIS.
APPARATUS FOR WELDING.



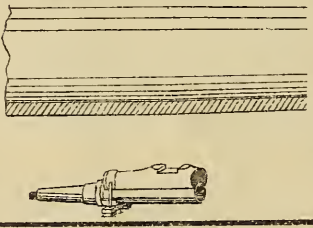
119,866 WILLIAM A. LEWIS.
HOLLOW AXLES FOR RAILROAD CARS.



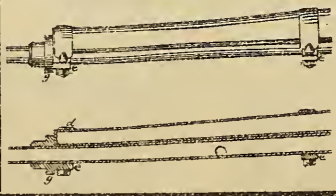
119,867 WILLIAM A. LEWIS.
CAR-WHEELS.



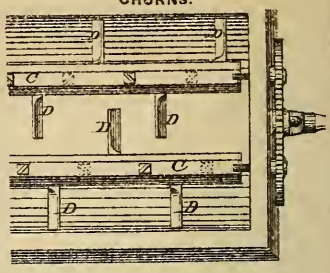
119,868 WILLIAM A. LEWIS.
WROUGHT-METAL AXLES FOR WAGONS



119,869 WILLIAM A. LEWIS,
TUBULAR DOUBLE-ARCH AXLES



119,870 WILLIAM H. LINK,
CHURNS.



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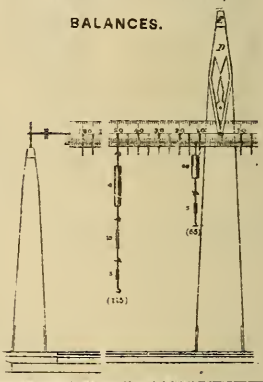
BALANCES.



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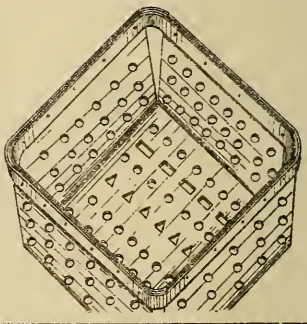
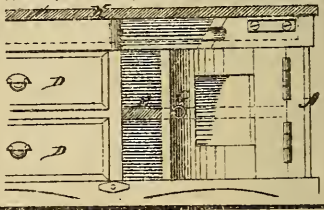
FRUIT-BOXES.



119,873 MARTHA J. MILLER,
TABLE, BUREAU, CUPBOARD, AND SINK.



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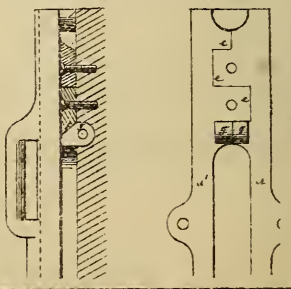

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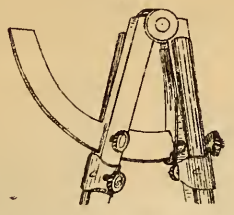
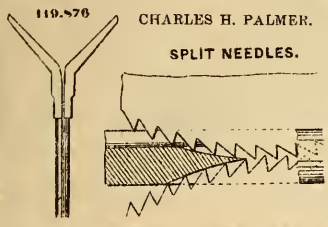
DIVIDERS.



119,876 CHARLES H. PALMER.
SPLIT NEEDLES.



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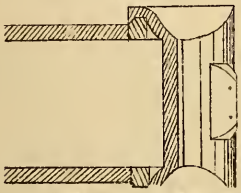
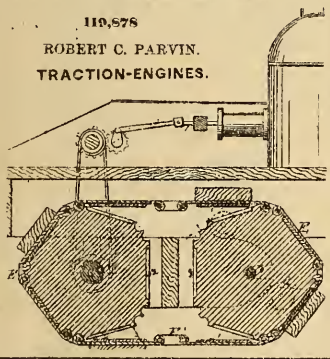
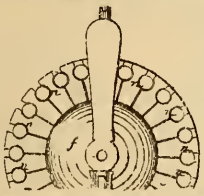
CAR-AXLE BOXES.



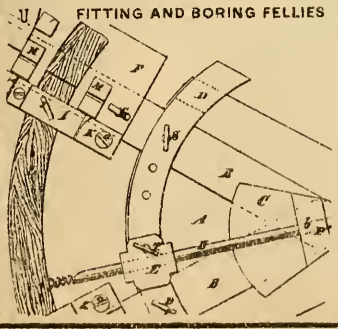
119,878
ROBERT C. PARVIN.
TRACTION-ENGINES.



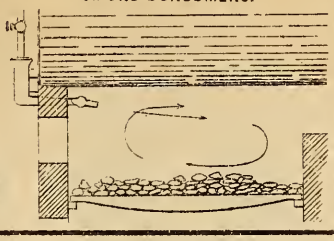
119,879 RICHARD PAULSON,
PERCUSSION-CAP CARRIERS.



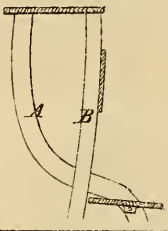
119,880 WILLIAM LAWRENCE PERRY,
FITTING AND BORING FELLIES



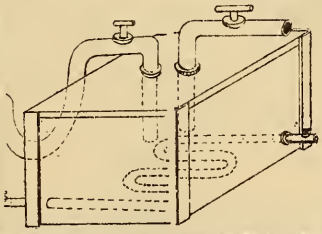
119,881 CHARLES PLUMB.
SMOKE-CONSUMERS.



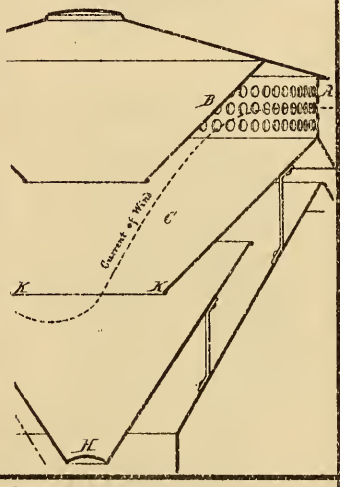
119,882 JOHN L. RITER,
FRAME FOR SCHOOL-DESKS AND SEATS



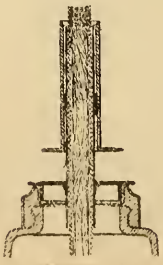
119,884 EDWARD A. L. ROBERTS,
PREVENTING CLOGGING OF OIL-WELLS.



119,885 JOHN G. ROTH,
CHIMNEY-COWLS.

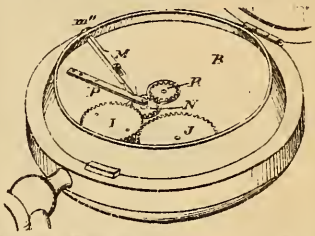


119,887 IRA W. SHALER,
LAMPS.

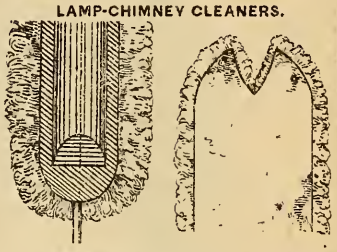


119,888 JOSIAH SHEPARD,
UMBRELLAS.

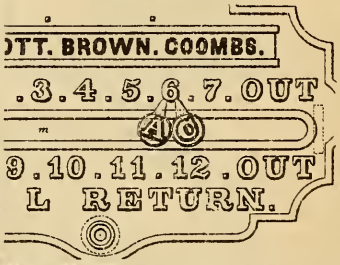
HARRY R. SMITH AND RUFUS FOLSOM,
119,889 STEM-WINDING WATCHES.



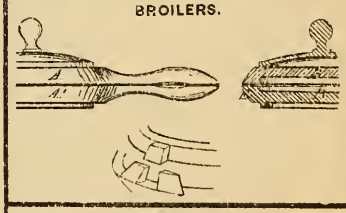
119,890 ISAAC SMITH,
LAMP-CHIMNEY CLEANERS.



119,891 JAMES S. SMITH,
OFFICE-TIME INDICATORS.

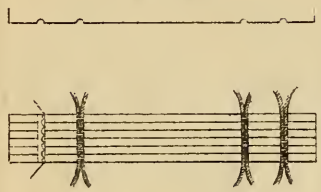


119,892 OTHNIEL J. SMITH,
BROILERS.



119,893 RACHEL P. SMITH,
FIRE-KINDLERS.

119,894
DAVID M. SMYTH.
BOOK-BINDING.



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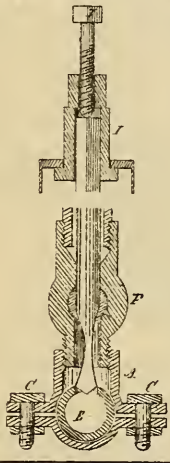
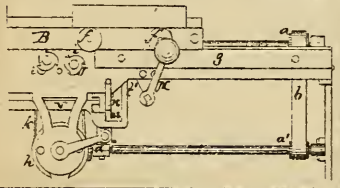
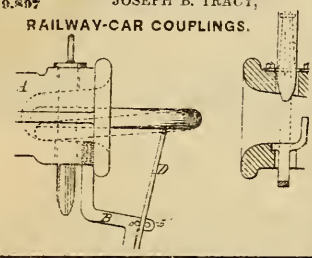
LEANDER SPAULDING AND ELIAS E. GUY.
TAPPING GAS AND WATER-PIPES.



119,896 SUTTON AND MEILINK.
TONGUING-AND-GROOVING MACHINES.



119,897 JOSEPH B. TRACY,
RAILWAY-CAR COUPLINGS.



ALVAH TRAVER AND PHILIP NICHOLS.
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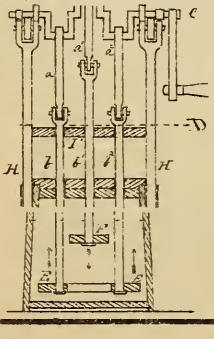

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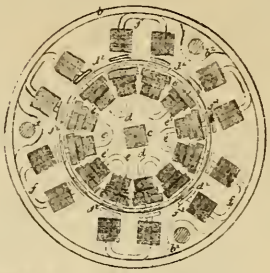
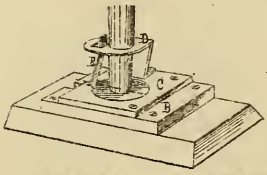
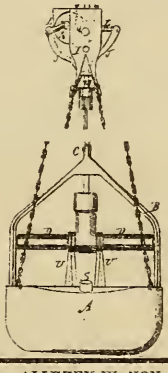


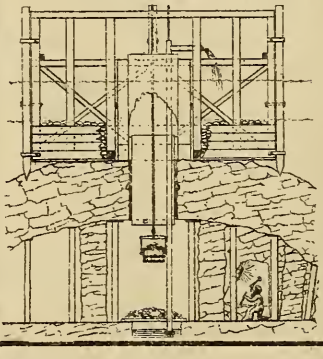
119,900 WILLIAM H. VAN CLEVE.
PUNCHING-MACHINES.



119,901 ISRAEL D. VANDECAR.
DREDGING-MACHINES.



119,902 ALEXEY W. VON SCHMIDT.
REMOVING SUBMARINE ROCKS.



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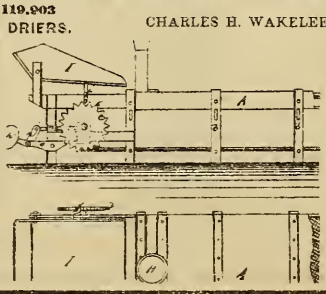
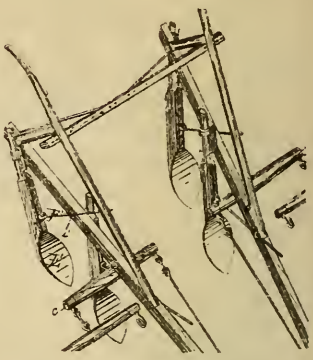


119,904 HENRY WELD.
CULTIVATORS.



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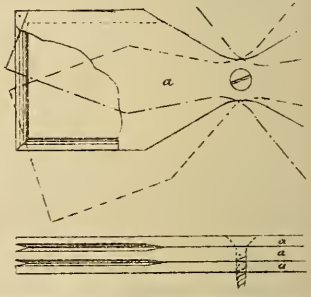
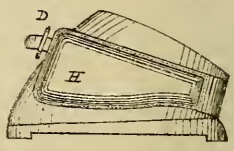
THOMAS WIER, INSECT-TRAPS.

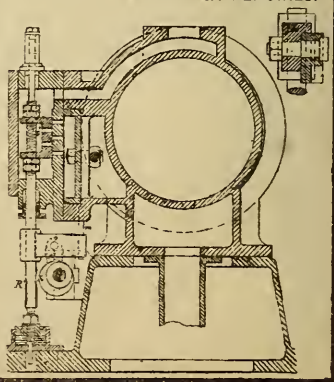


119,906 ROMEYN WILLIAMS.
BOOTS FOR HORSE'S HOOFS.

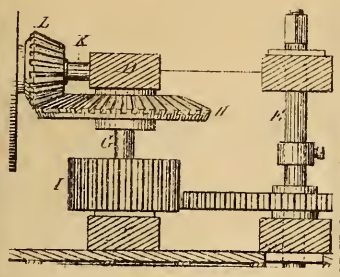


DAVID D. WISELL.
CARRIAGE-SPRINGS.
119,907

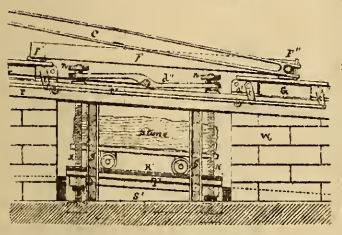
119,908 WILLIAM WRIGHT.
CUT-OFFS FOR STEAM-ENGINES.



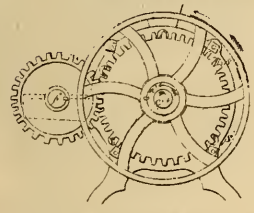
119,909 DAVID A. WARNOCK,
WILLIAM R. WRIGHT,
HORSE-POWERS.



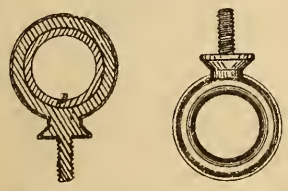
119,910 HUGH YOUNG,
MACHINES FOR CUTTING STONE.



4,579 WILSON AGER.
MACHINES FOR CLEANING AND SCOURING RICE, COFFEE, AND OTHER GRAIN



4,580 JOHN BAUER,
HARNESS-TRIMMINGS.



4,581 BERTRAND AND SAMES.
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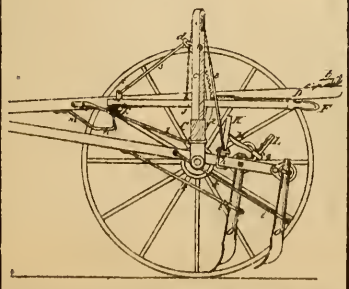
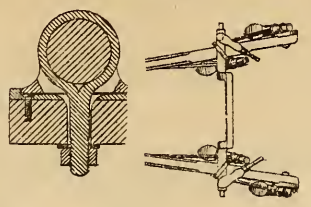
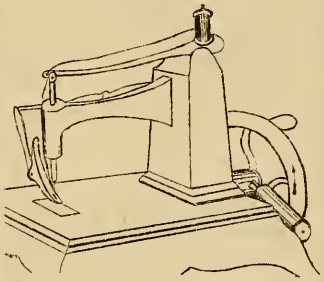


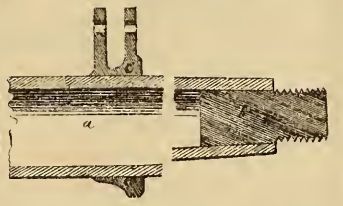
4,582 BUCKMAN, AND SISSON.
HARVESTERS.



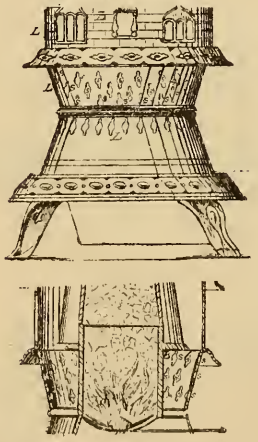
4,583 JAMES HANLEY,
MECHANICAL MOVEMENTS



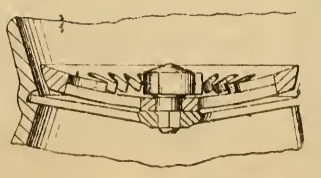
4,584 WILLIAM ARNOLD LEWIS,
WAGON-AXLES.



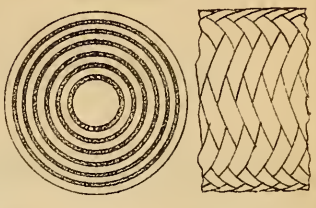
4,585 DENNIS G. LITTLEFIELD,
BASE-BURNERS.



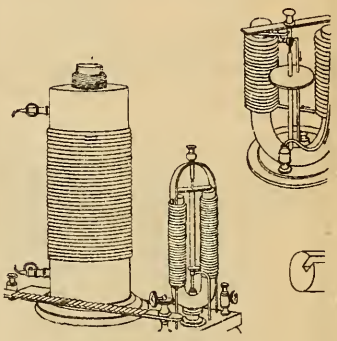
4,586 DENNIS G. LITTLEFIELD.
GRATES.



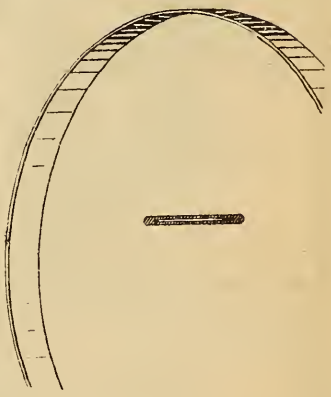
4,587 WILLIAM HARTLEY MILLER,
PISTON-ROD PACKINGS.



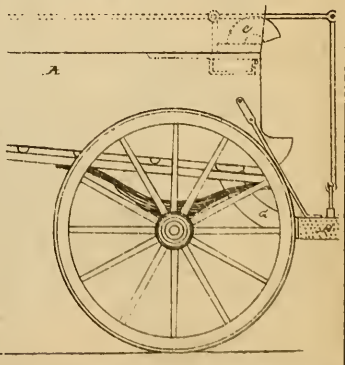
4,588 PRISCILLA WEBSTER PAGE,
INDUCTION-COIL APPARATUS AND CIRCUIT-BREAKERS.



4,589 JOHN W. RIGGS,
TRUSS-SPRINGS.



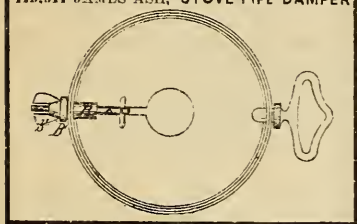
4,590 LEONHARD RODENHAUSEN,
STREET-SPRINKLING CARTS.



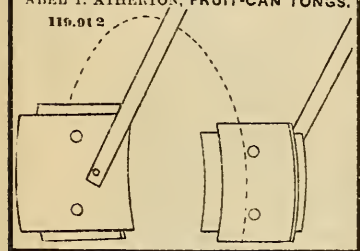
119,911. 119,925.

ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
OCTOBER 17, 1871.

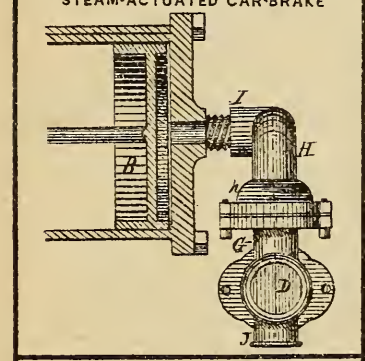
119,911 JAMES ASH, STOVE-PIPE DAMPER



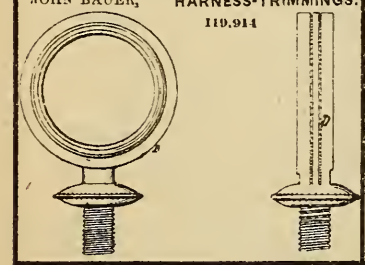
119,912 ABEL T. ATHERTON, FRUIT-CAN TONGS.



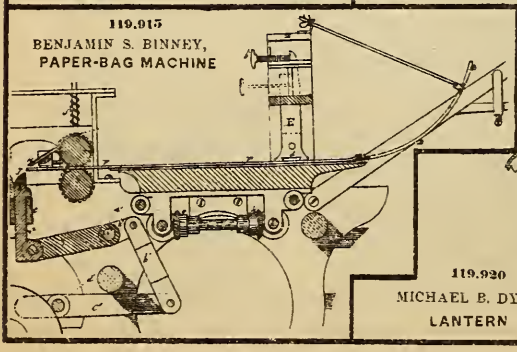
119,913 JOHN T. BASSETT, STEAM-ACTUATED CAR-BRAKE



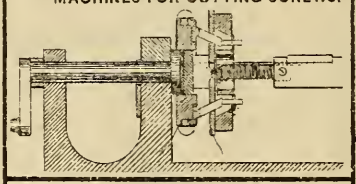
JOHN BAUER, HARNESS-TRIMMINGS. 119,914



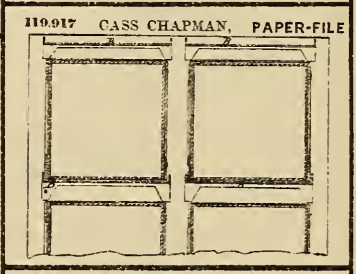
119,915 BENJAMIN S. BINNEY, PAPER-BAG MACHINE



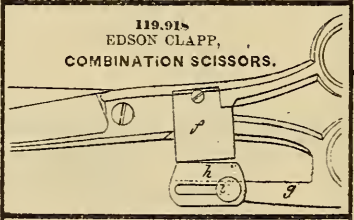
119,916 JAMES M. CARPENTER, MACHINES FOR CUTTING SCREWS.



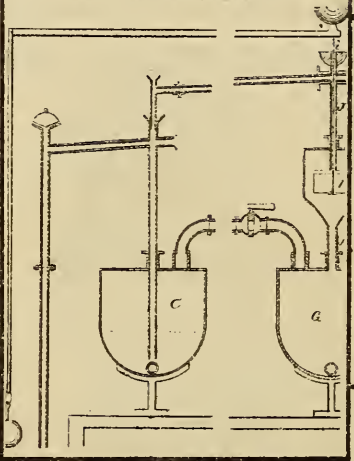
119,917 CASS CHAPMAN, PAPER-FILE



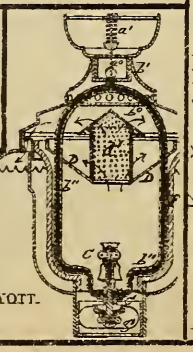
119,918 EDSON CLAPP, COMBINATION SCISSORS.



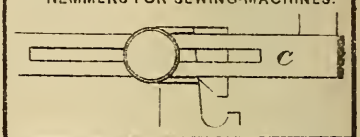
119,919 CHARLES COLLIER, HYDRAULIC MAINS OF GAS-WORKS.



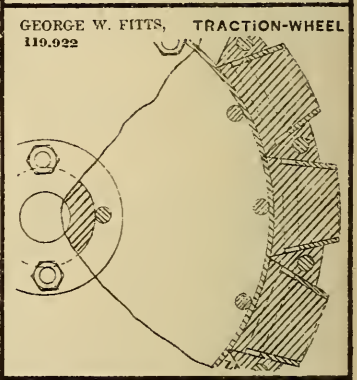
119,920 MICHAEL B. DYOTT, LANTERN



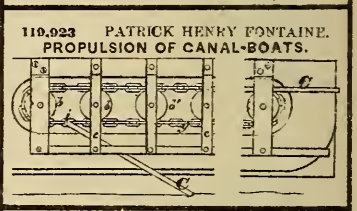
119,921 HENRY ALLYN ELLIS, HEMMERS FOR SEWING-MACHINES.



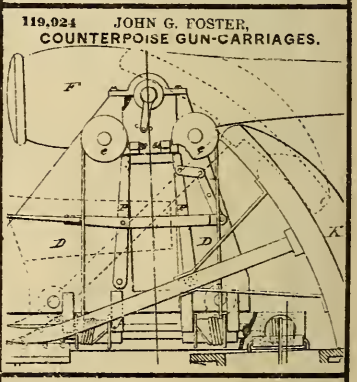
GEORGE W. FITTS, TRACTION-WHEEL 119,922



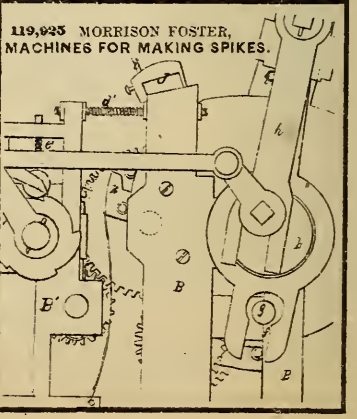
119,923 PATRICK HENRY FONTAINE, PROPULSION OF CANAL-BOATS.



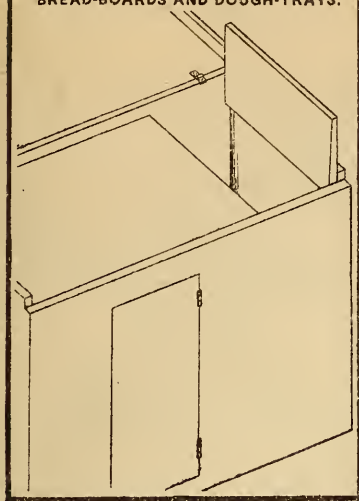
119,924 JOHN G. FOSTER, COUNTERPOISE GUN-CARRIAGES.



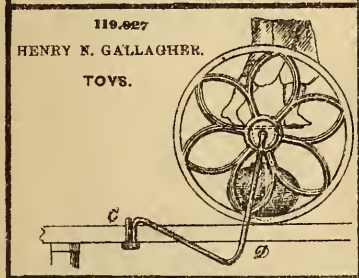
119,925 MORRISON FOSTER, MACHINES FOR MAKING SPIKES.



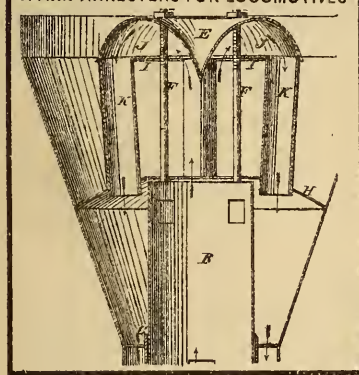
119,926 BENNINGTON FULTON,
BREAD-BOARDS AND DOUGH-TRAYS.



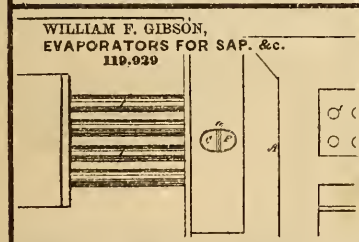
119,927
HENRY N. GALLAGHER.
TOYS.



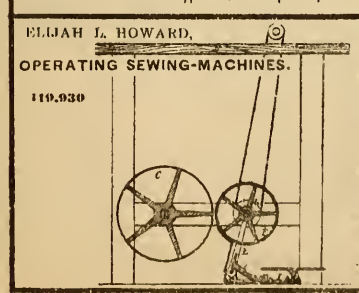
119,928 BENJAMIN GARVIN,
SPARK-ARRESTERS FOR LOCOMOTIVES



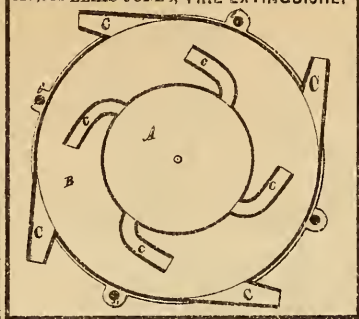
WILLIAM F. GIBSON,
EVAPORATORS FOR SAP. &c.
119,929



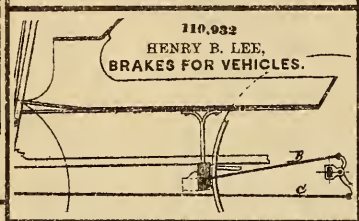
ELIJAH L. HOWARD,
OPERATING SEWING-MACHINES.
119,930



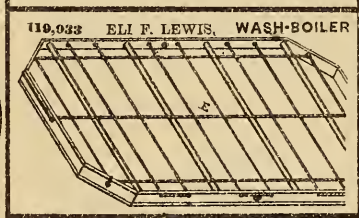
119,931 ELIAS JONES, FIRE-EXTINGUISHER



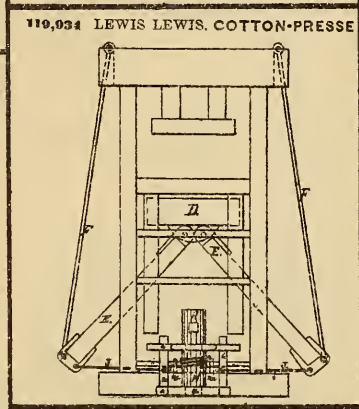
119,932
HENRY B. LEE,
BRAKES FOR VEHICLES.



119,933 ELI F. LEWIS, WASH-BOILER

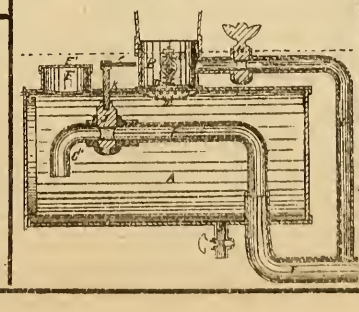


119,934 LEWIS LEWIS. COTTON-PRESSE

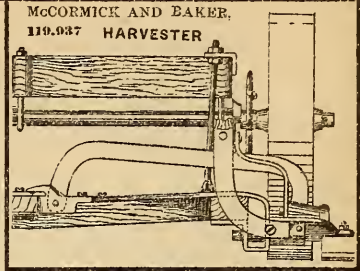


WILLIAM A. LUDDEN,
PENCIL-CASE
119,935

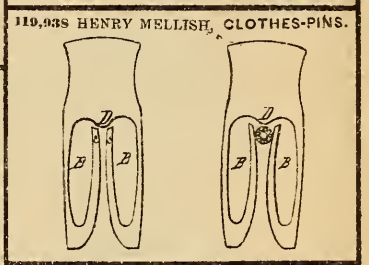
119,936 JOHN H. MANNING,
FIRE-EXTINGUISHERS.

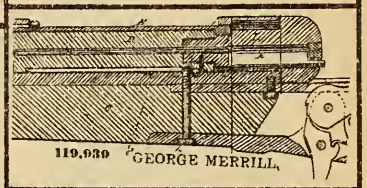


McCORMICK AND BAKER,
119,937 HARVESTER



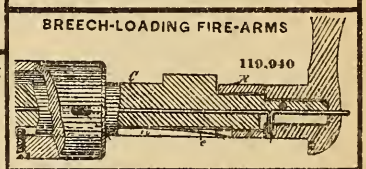
119,938 HENRY MELLISH, CLOTHES-PINS.



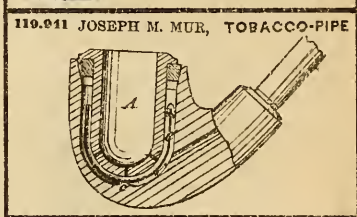


119,939 GEORGE MERRILL,

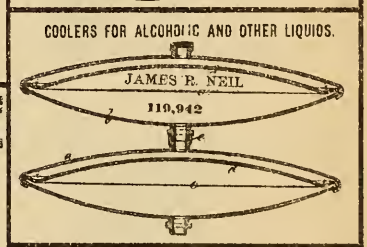
BREECH-LOADING FIRE-ARMS
119,940



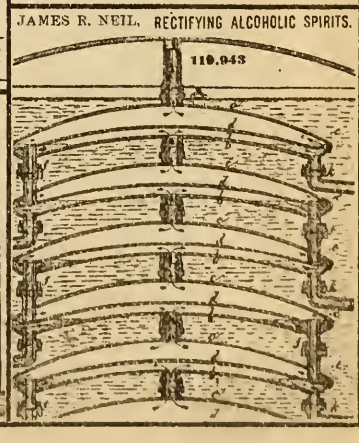
119,941 JOSEPH M. MUR, TOBACCO-PIPE



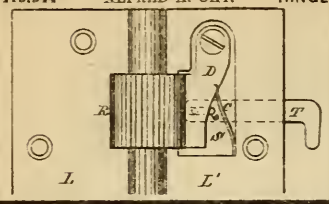
COOLERS FOR ALCOHOLIC AND OTHER LIQUIDS.
JAMES R. NEIL
119,942



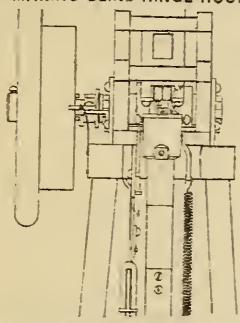
JAMES R. NEIL, RECTIFYING ALCOHOLIC SPIRITS.
119,943



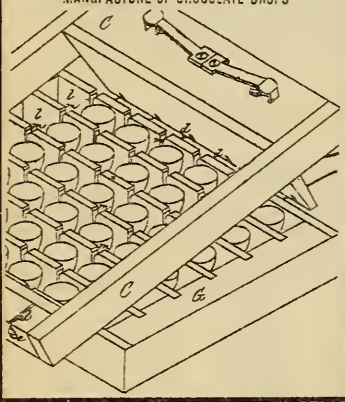
119,944 ALFRED A. OAT. HINGE



GALEN OBR.
119,945 MAKING BLIND-HINGE HOOKS.

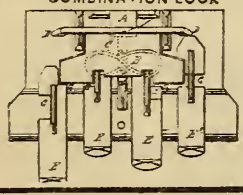


119,946 SANFORD A. PARKER.
MANUFACTURE OF CHOCOLATE-DROPS



ISAAC N. PATTEN.
FILES.
119,947

119,948 GEORGE H. PEACOCK.
COMBINATION LOCK



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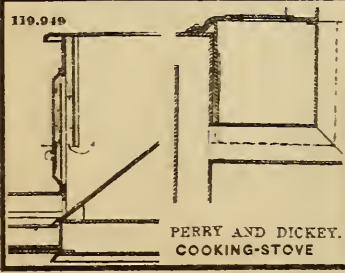
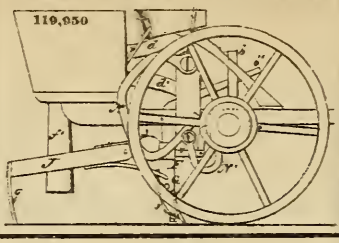
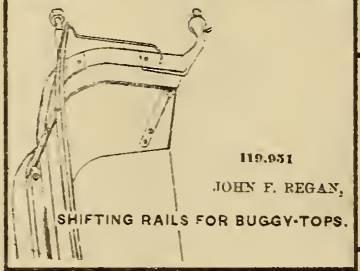


PERRY AND DICKEY.
COOKING-STOVE

RAMEY AND CROSS. CORN-PLANTER
119,950



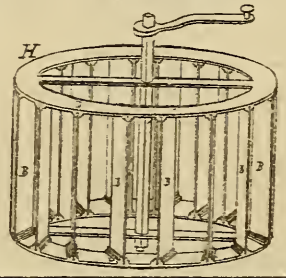


119,951
JOHN F. REGAN,
SHIFTING RAILS FOR BUGGY-TOPS.

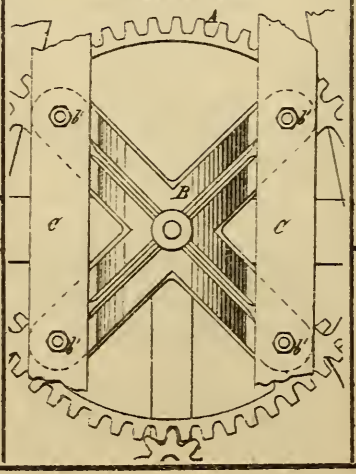
119,952 SMITH AND SMITH.

SAP-BUCKET COVER

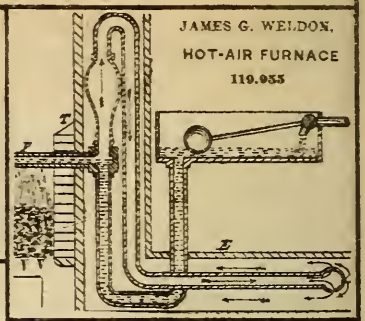
119,953 WILLIAM LINTON THOMPSON.
DISH-WASHER



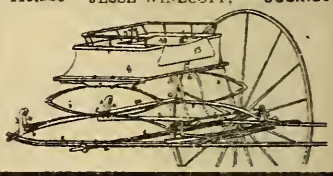
119,954 JOHN VALENTINE.
HORSE-POWER



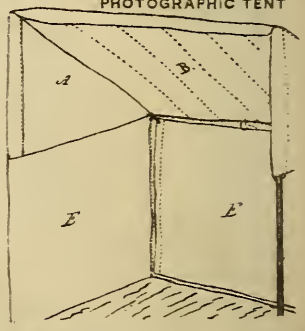
JAMES G. WELDON.
HOT-AIR FURNACE
119,955



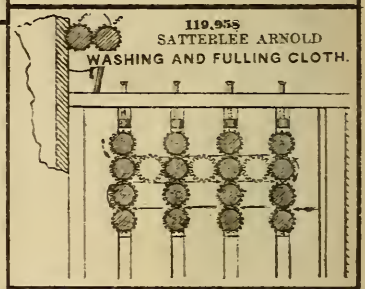
119,956 JESSE WINECOFF. SULKIES.



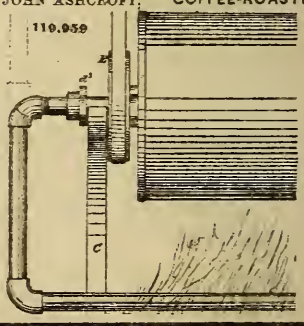
119,957 I. FLETCH WOODWARD.
PHOTOGRAPHIC TENT



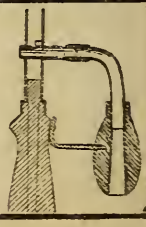
119,958
SATTERLEE ARNOLD
WASHING AND FULLING CLOTH.



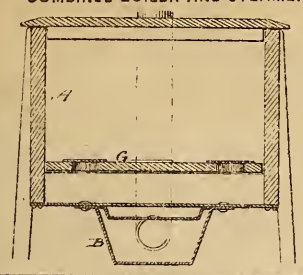
JOHN ASHCROFT. COFFEE-ROASTER
119,959



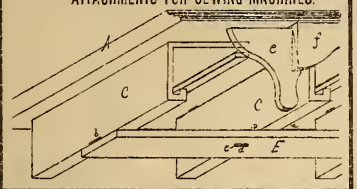
119,960
C. HENRY BARNEY.
HAIR-CURLER



119,961 JOSEPH P. BRADFORD.
COMBINED BOILER AND STEAMER.

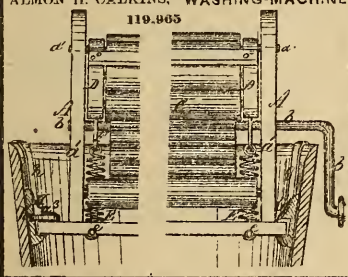


119,962 DE WITT CLINTON BREED.
ATTACHMENTS FOR SEWING-MACHINES.

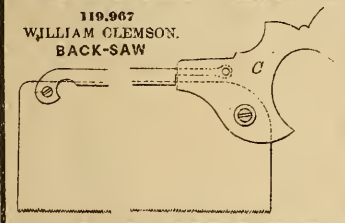


119,963 HEMAN P. BROOKS.
PARING-AND-SLICING KNIVES.

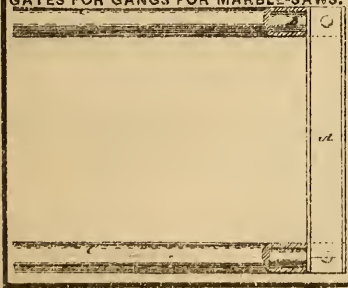
ALMON H. CALKINS. WASHING-MACHINE
119,965



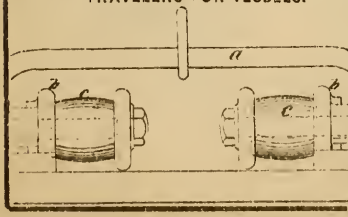
119,967
WILLIAM CLEMSON.
BACK-SAW



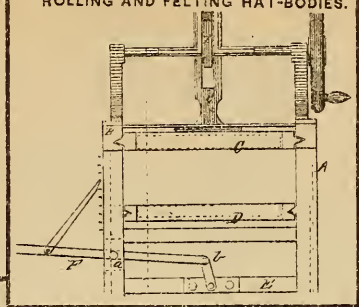
119,968 LUCIUS B. CLOGSTON.
GATES FOR GANGS FOR MARBLE-SAWS.



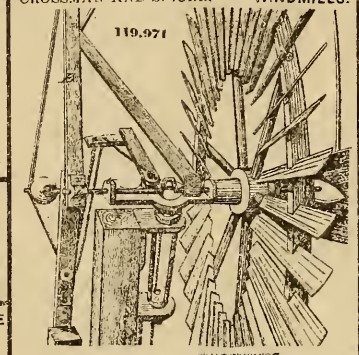
119,969 DAVID N. B. COFFIN, JR.,
TRAVELERS FOR VESSELS.



CRISP, AND DODD 119,970
ROLLING AND FELTING HAT-BODIES.



CROSSMAN AND SPICER. WINDMILLS.
119,971



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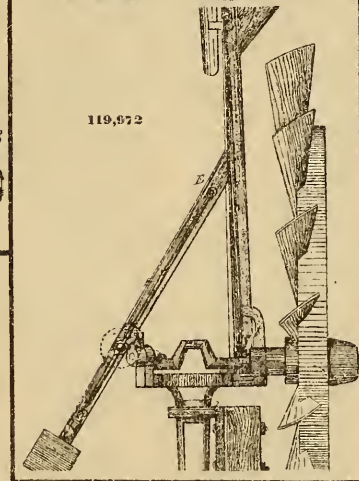
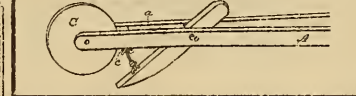
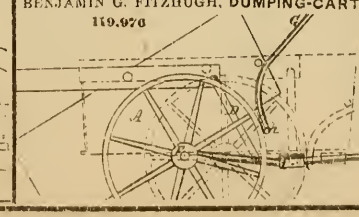


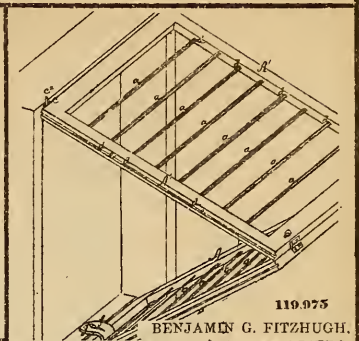
119,973 BENJAMIN G. FITZHUGH.
WHEELBARROW AND HAND-PLOW.



BENJAMIN G. FITZHUGH. 119,974
BROILER

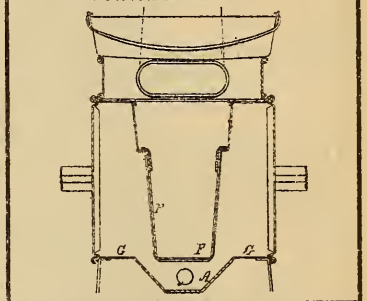
BENJAMIN G. FITZHUGH. DUMPING-CART
119,976



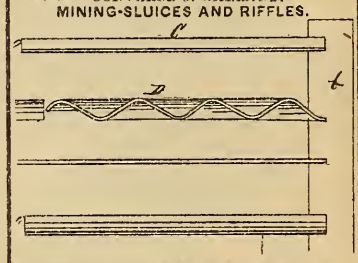


119,975
BENJAMIN G. FITZHUGH.
WINDOW-SHADES AND CLOTHES-DRIERS.

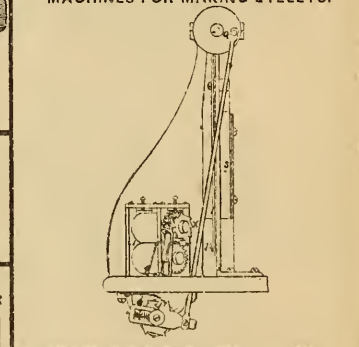
119,977 BENJAMIN G. FITZHUGH.
PORTABLE FURNACE



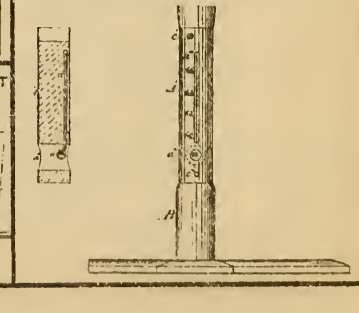
119,978 CONVERSE J. GARLAND.
MINING-SLUICES AND RIFFLES.



119,979 THOMAS GARRICK.
MACHINES FOR MAKING EYELETS.



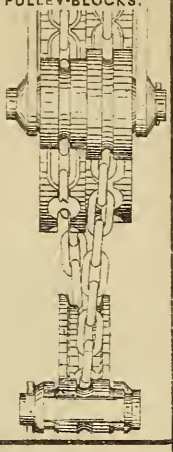
119,980 DEMAS L. GROVER.
CHURN-DASHERS.



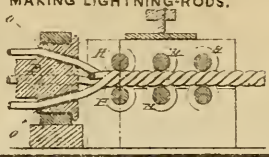
DIFFERENTIAL PULLEY-BLOCKS.

CHARLES HALL.

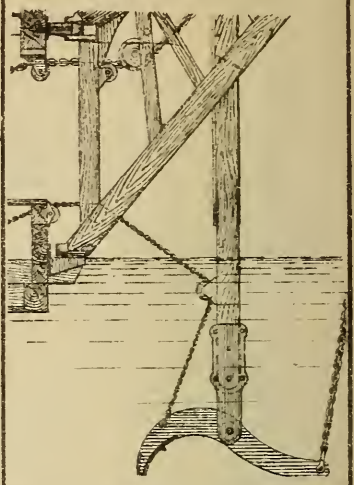
119,981



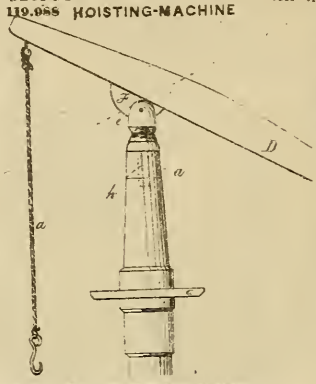
119,987 GEORGE S. KNAPP.
MAKING LIGHTNING-RODS.



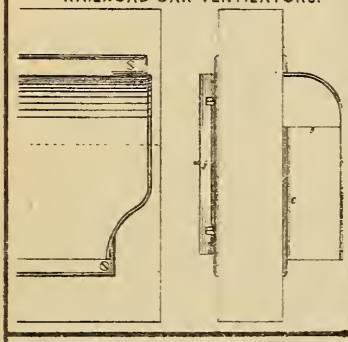
119,992 OSGOOD AND OSGOOD.
SUBMARINE EXCAVATOR



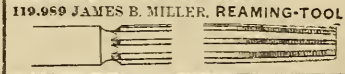
GEORGE R. LONG AND SAMUEL KING.
119,988 HOISTING-MACHINE



119,982 GEORGE A. HINES.
RAILROAD-CAR VENTILATORS.

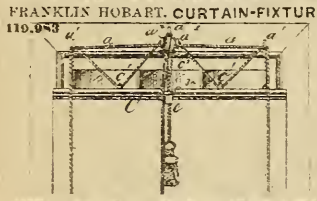


119,989 JAMES B. MILLER. REAMING-TOOL

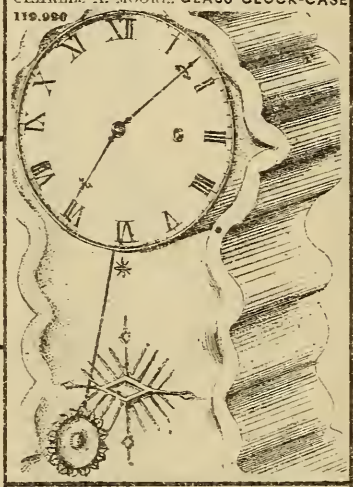


119,995 L. CORYDON PRINDLE.
CARD-RACK

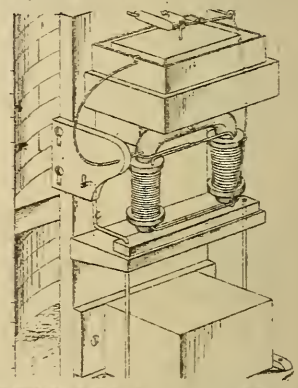
FRANKLIN HOBART. CURTAIN-FIXTURES.
119,983



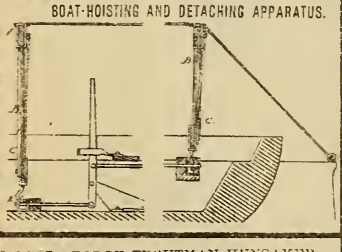
CHARLES A. MOORE. GLASS CLOCK-CASE
119,990



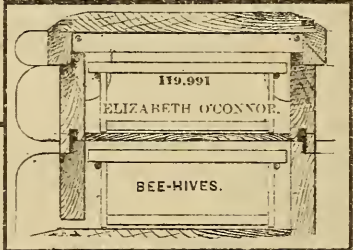
119,996 SILAS G. RANDALL.
ELECTRO-MAGNETIC WATER-ELEVATOR



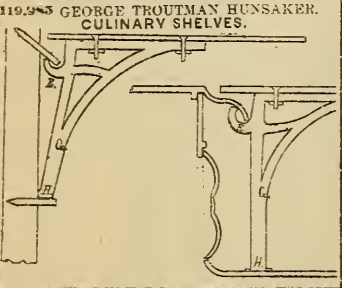
119,981 JOSEPH HUMPHRIES.
BOAT-HOISTING AND DETACHING APPARATUS.



119,991
ELIZABETH O'CONNOR.
BEE-HIVES.

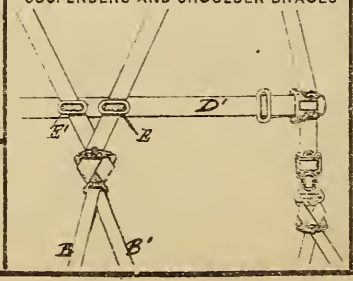


119,985 GEORGE TROUTMAN HUNSAKER.
CULINARY SHELVES.



THOMAS C. RICE.
FIRE-ESCAPE
119,997

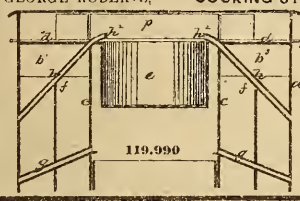
119,993 POTTER AND SMITH.
SUSPENDERS AND SHOULDER-BRACES



119,986 THOMAS V. KIMBLE. GARDEN-HOE

119,998 DE WITT BIKER. SAW

GEORGE ROBERTS, COOKING-STOVE



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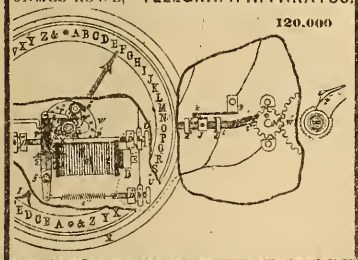
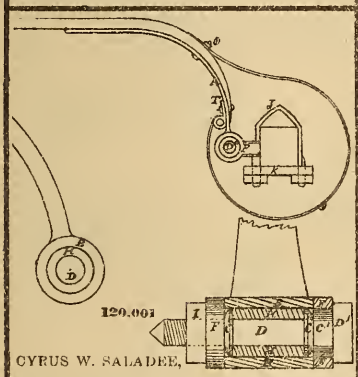
JAMES ROWE, TELEGRAPH APPARATUS.

120,000





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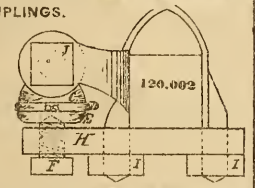
CYRUS W. SALADEE, THILL-COUPLINGS.

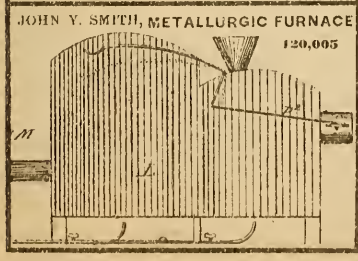


120,002

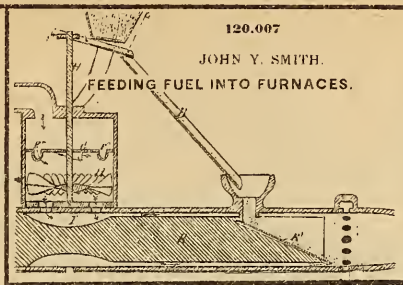
120,004 JUSTIN P. SKINNER, CARRIAGE-NUTS.

JOHN Y. SMITH, METALLURGIC FURNACE

120,005

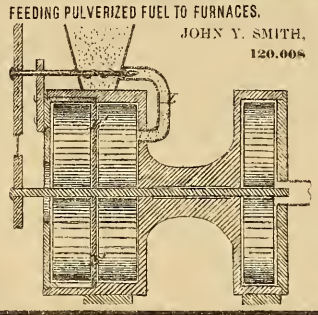


120,007 JOHN Y. SMITH. FEEDING FUEL INTO FURNACES.

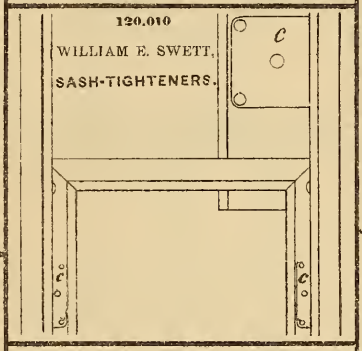


FEEDING PULVERIZED FUEL TO FURNACES. JOHN Y. SMITH.

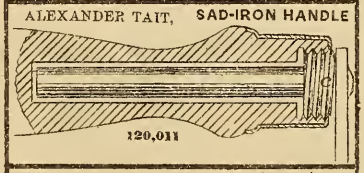
120,008



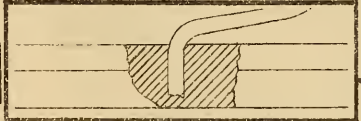
120,010 WILLIAM E. SWETT, SASH-TIGHTENERS.



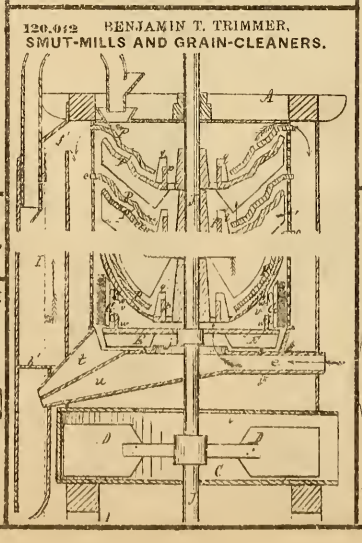
ALEXANDER TAIT, SAD-IRON HANDLE

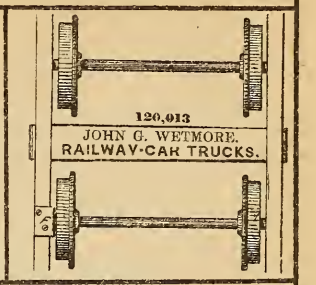


120,011



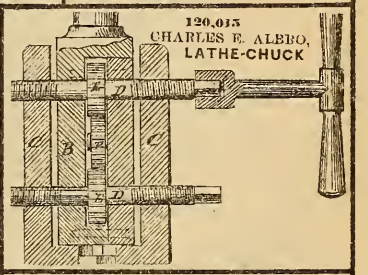
120,012 BENJAMIN T. TRIMMER, SMUT-MILLS AND GRAIN-CLEANERS.





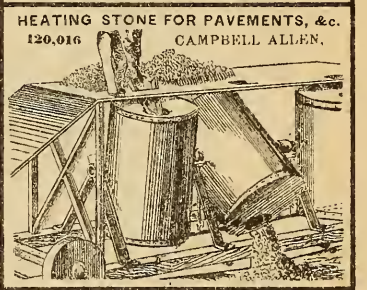
120,013 JOHN G. WETMORE. RAILWAY-CAR TRUCKS.

120,015 CHARLES E. ALBRO, LATHE-CHUCK



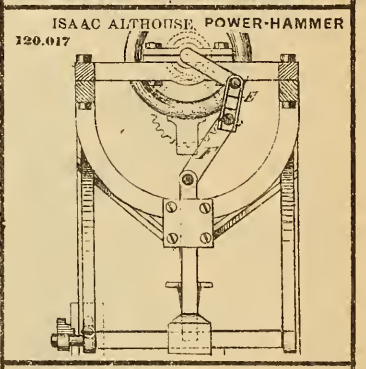
HEATING STONE FOR PAVEMENTS, &c.

120,016 CAMPBELL ALLEN.

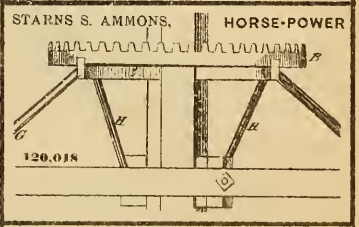


ISAAC ALTHOUSE, POWER-HAMMER

120,017

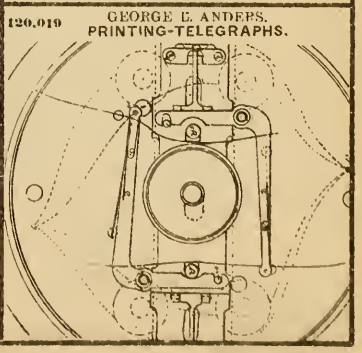


STARNS S. AMMONS, HORSE-POWER

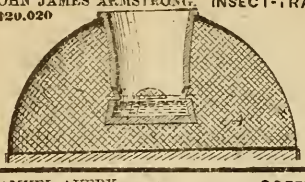


120,018

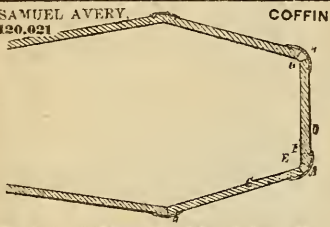
120,019 GEORGE E. ANDEPS. PRINTING-TELEGRAPHS.



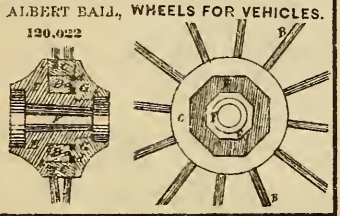
JOHN JAMES ARMSTRONG, INSECT-TRAP
120,020



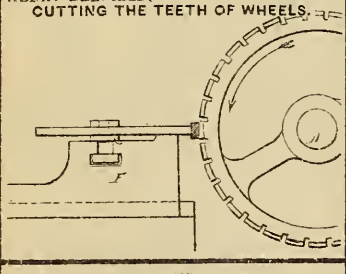
SAMUEL AVERY, COFFIN
120,021



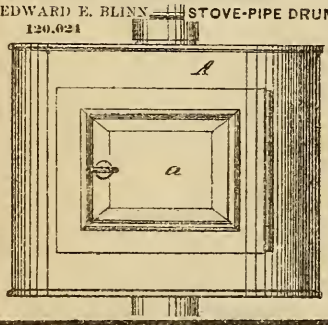
ALBERT BAIL, WHEELS FOR VEHICLES.
120,022



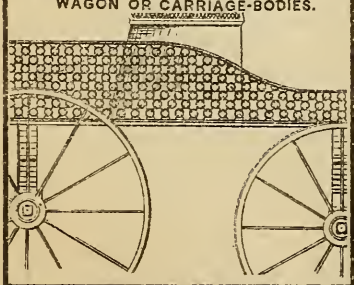
HENRY BELFIELD, 120,023
CUTTING THE TEETH OF WHEELS.



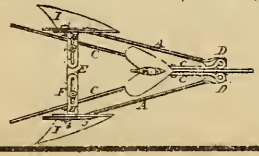
EDWARD E. BLINN, STOVE-PIPE DRUM
120,024



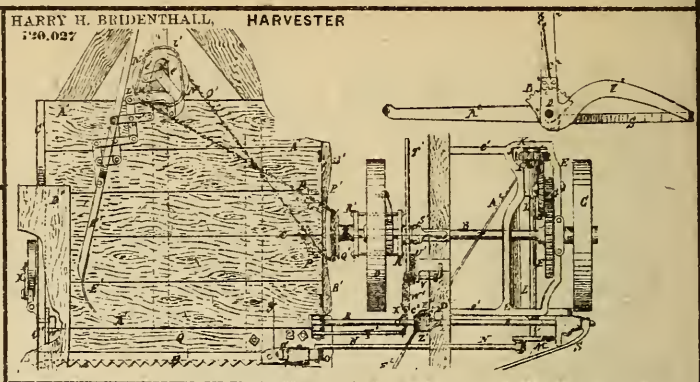
120,025 MICHAEL C. BOYER,
WAGON OR CARRIAGE-BODIES.



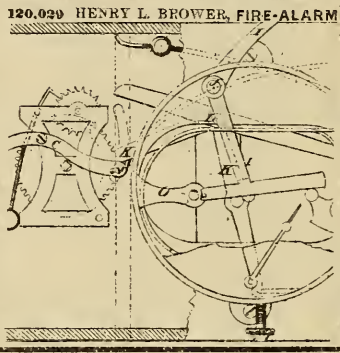
120,028 JOHN T. BRITTAIN, CULTIVATOR



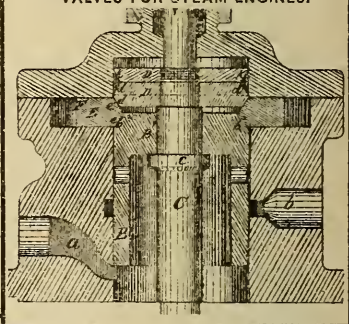
HARRY H. BRIDENTHALL, HARVESTER
120,027

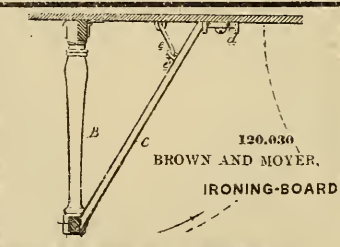


120,029 HENRY L. BROWER, FIRE-ALARM



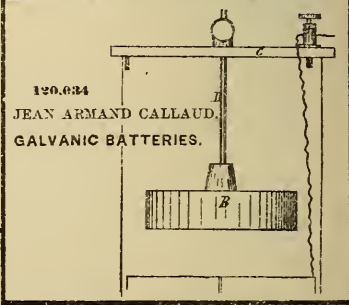
120,033 HENRY L. BUTLER,
VALVES FOR STEAM-ENGINES.



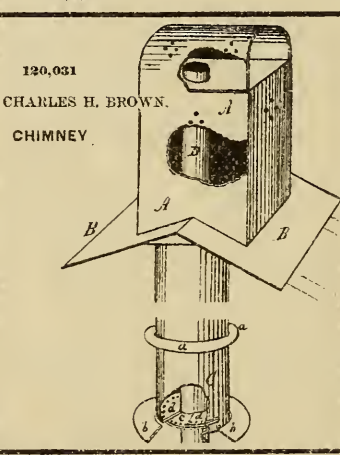


120,030
BROWN AND MOYER,
IRONING-BOARD

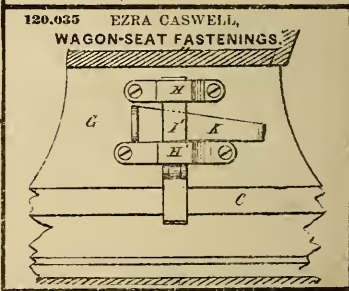
120,034
JEAN ARMAND CALLAUD,
GALVANIC BATTERIES.

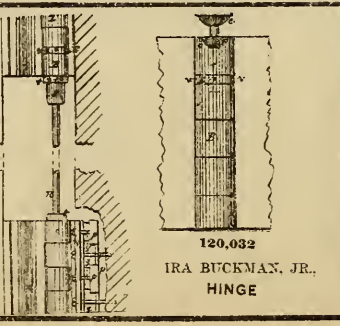


120,031
CHARLES H. BROWN,
CHIMNEY



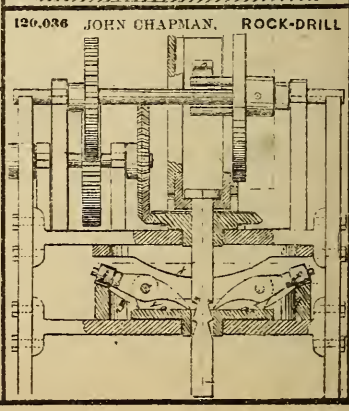
120,035 EZRA CASWELL,
WAGON-SEAT FASTENINGS.



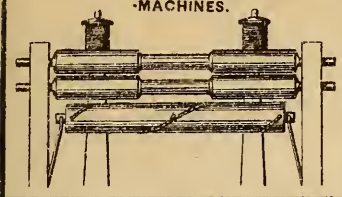


120,032
IRA BUCKMAN, JR.,
HINGE

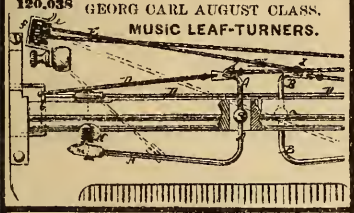
120,036 JOHN CHAPMAN, ROCK-DRILL

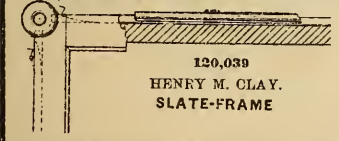


120,037 LINNEUS CHEETHAM.
ROLLER-CLEARERS FOR SPINNING MACHINES.



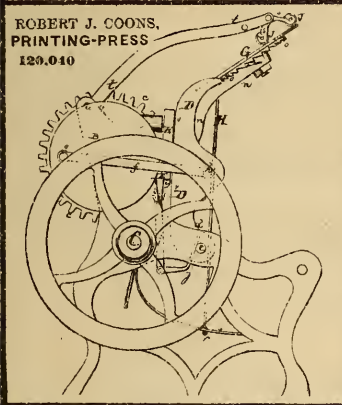
120,038 GEORG CARL AUGUST CLASS.
MUSIC LEAF-TURNERS.



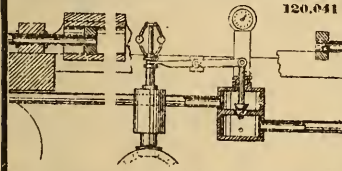


120,039
HENRY M. CLAY.
SLATE-FRAME

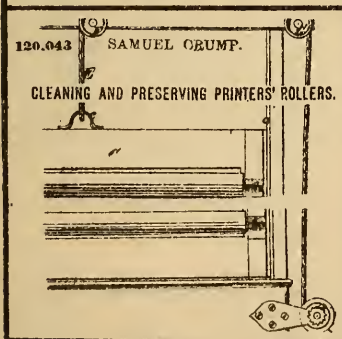
ROBERT J. COONS.
PRINTING-PRESS
120,040



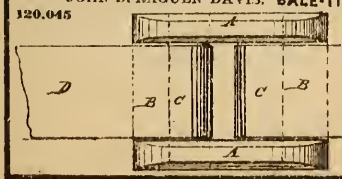
CALVERT B. COTTRELL, PRINTING-PRESS
120,041



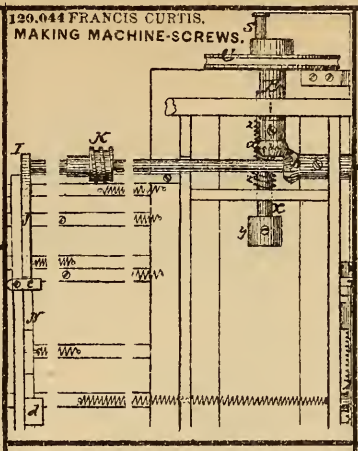
120,043 SAMUEL CRUMP.
CLEANING AND PRESERVING PRINTERS' ROLLERS.



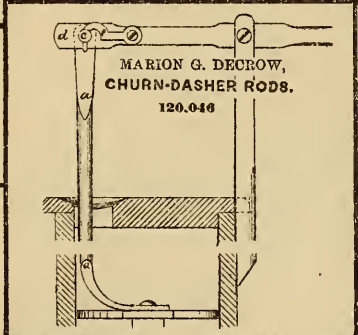
JOHN SPRAGUEN DAVIS. BALE-TIE
120,045



120,044 FRANCIS CURTIS.
MAKING MACHINE-SCREWS.



MARION G. DECROW,
CHURN-DASHER RODS.
120,046



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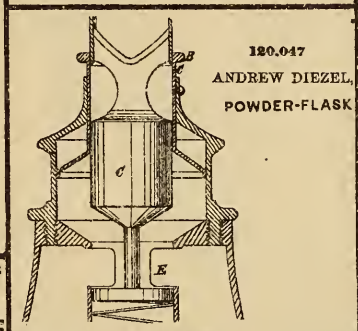
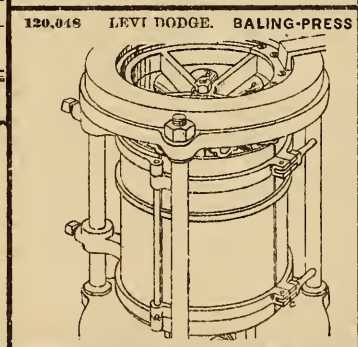
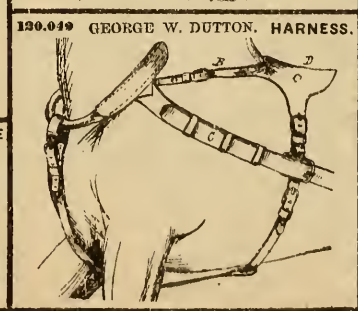
ANDREW DIEZEL,
POWDER-FLASK

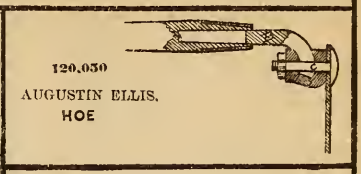


120,048 LEVI DODGE. BALING-PRESS



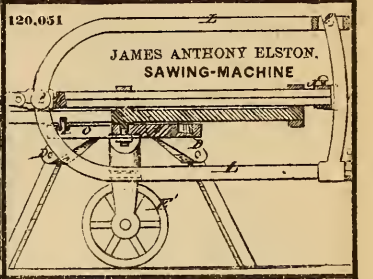
120,049 GEORGE W. DUTTON. HARNESS.



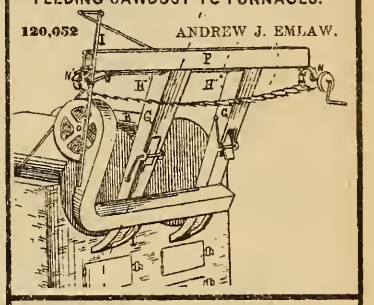


120,050
AUGUSTIN ELLIS.
HOE

120,051
JAMES ANTHONY ELSTON.
SAWING-MACHINE



FEEDING SAWDUST TO FURNACES.
120,052 ANDREW J. EMLAW.



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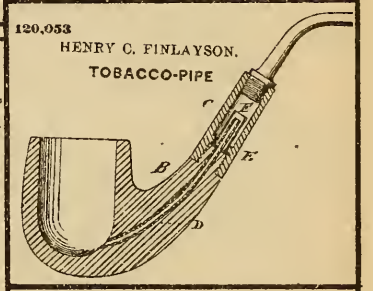
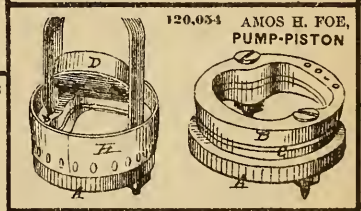
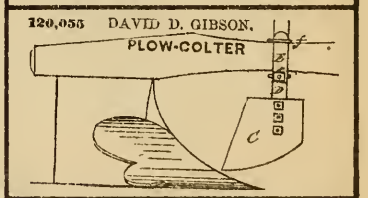
HENRY C. FINLAYSON.
TOBACCO-PIPE



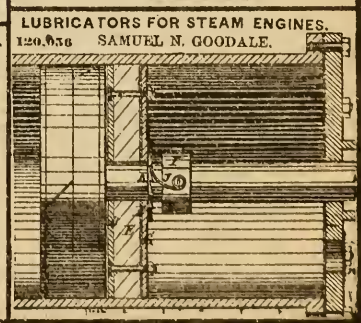
120,054 AMOS H. FOE,
PUMP-PISTON



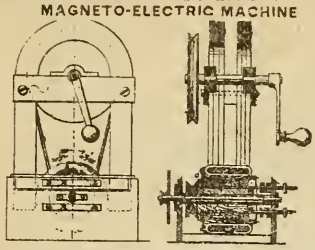
120,055 DAVID D. GIBSON.
PLOW-COLTER



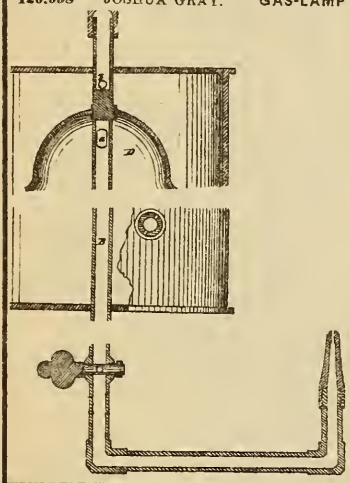
LUBRICATORS FOR STEAM ENGINES.
120,056 SAMUEL N. GOODALE.



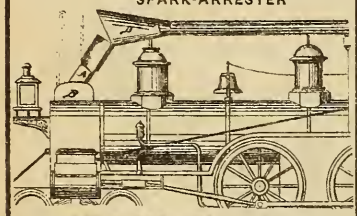
120,057 GRAMME AND D'IVERNOIS.
MAGNETO-ELECTRIC MACHINE



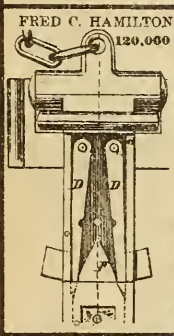
120,058 JOSHUA GRAY. GAS-LAMP



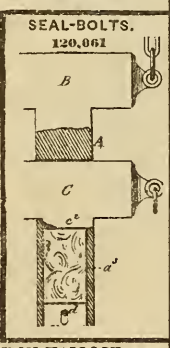
120,059 GREACEN AND GREACEN.
SPARK-ARRESTER



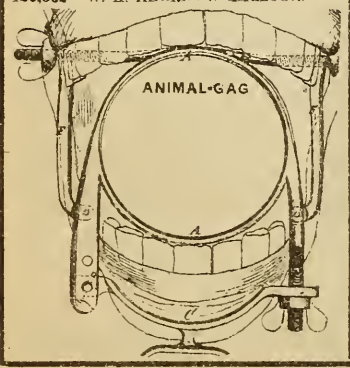
FRED C. HAMILTON. 120,060



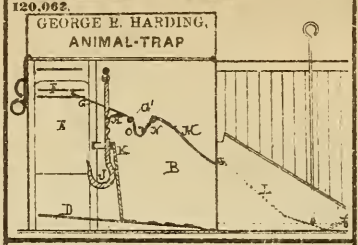
SEAL-BOLTS.
120,061



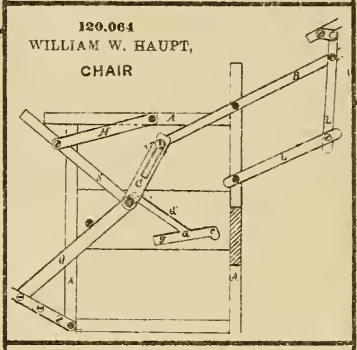
120,062 W. H. HARRISON HALLOCK.
ANIMAL-GAG



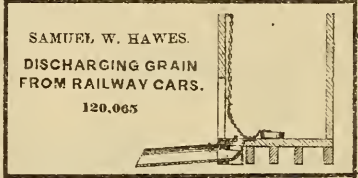
120,062.
GEORGE E. HARDING.
ANIMAL-TRAP



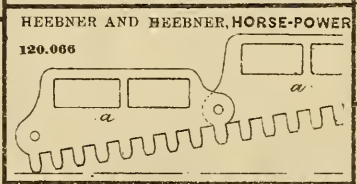
120,064
WILLIAM W. HAUPT,
CHAIR



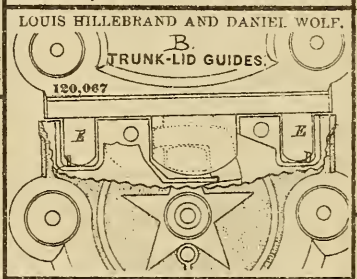
SAMUEL W. HAWES.
DISCHARGING GRAIN
FROM RAILWAY CARS.
120,065



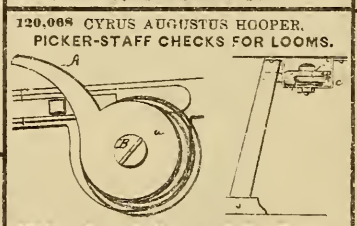
HEEBNER AND HEEBNER, HORSE-POWER
120,066



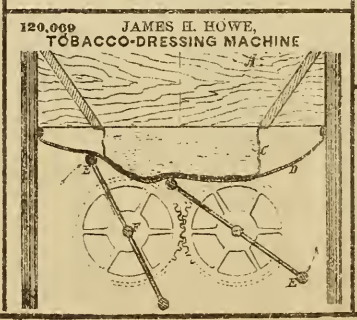
LOUIS HILLEBRAND AND DANIEL WOLF.
TRUNK-LID GUIDES.
120,067



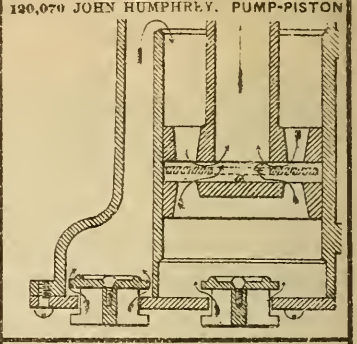
120,068 CYRUS AUGUSTUS HOOPER.
PICKER-STAFF CHECKS FOR LOOMS.



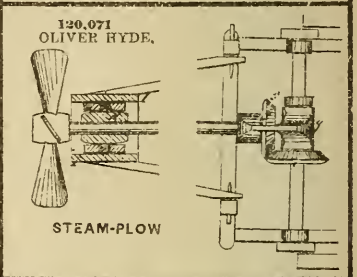
120,069 JAMES H. HOWE,
TOBACCO-DRESSING MACHINE



120,070 JOHN HUMPHREY. PUMP-PISTON

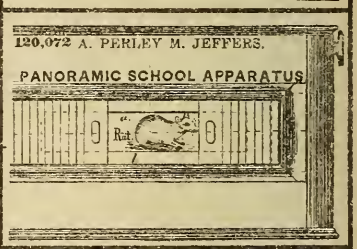


120,071
OLIVER HYDE.

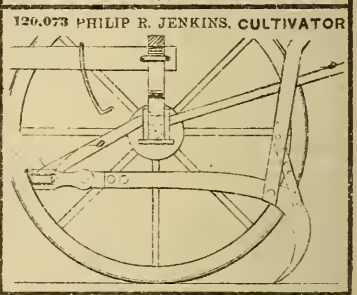


STEAM-PLOW

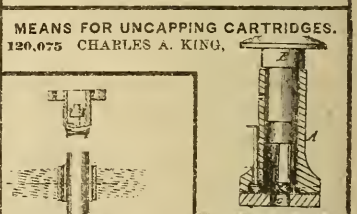
120,072 A. PERLEY M. JEFFERS.
PANORAMIC SCHOOL APPARATUS



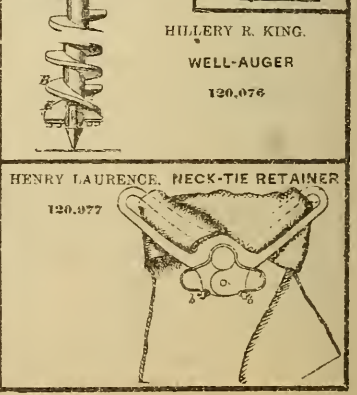
120,073 PHILIP R. JENKINS. CULTIVATOR



MEANS FOR UNCAPPING CARTRIDGES.
120,075 CHARLES A. KING.

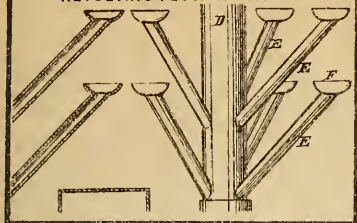


HILLERY R. KING.
WELL-AUGER
120,076

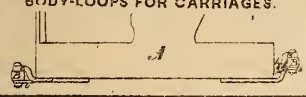


HENRY LAURENCE. NECK-TIE RETAINER
120,077

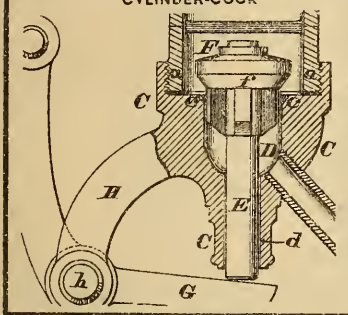
120,078 THOMAS LESLIE,
REVOLVING FLOWER-STANDS.



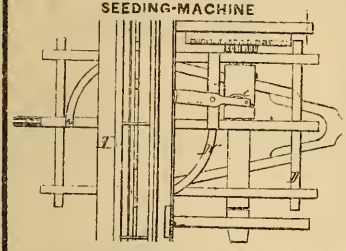
120,079 HENRY AUGUSTUS LÜTTGENS,
BODY-LOOPS FOR CARRIAGES.



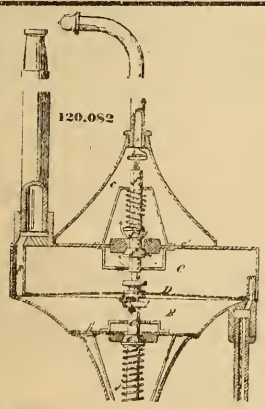
120,080 MASON AND McCRUM,
CYLINDER-COCK



120,081 SAMUEL O. MASTERS.
SEEDING-MACHINE

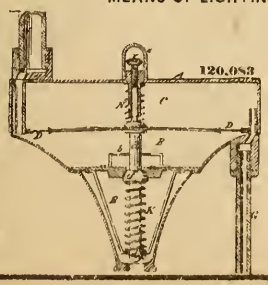


120,082

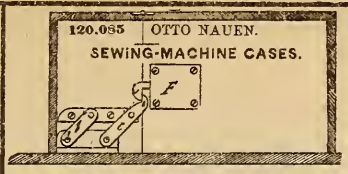


EDWIN D. McCRACKEN,
MEANS OF LIGHTING GAS.

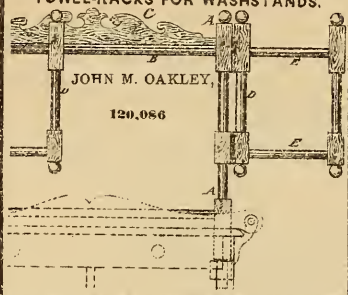
120,083



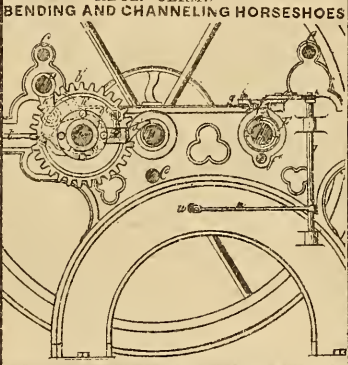
120,085 OTTO NAUEN.
SEWING-MACHINE CASES.



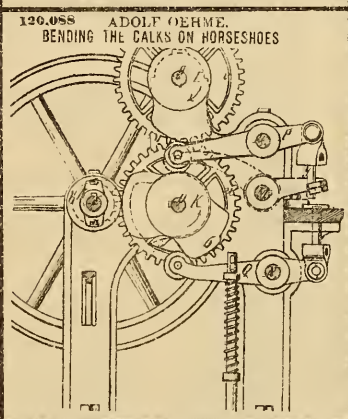
TOWEL-RACKS FOR WASHSTANDS.
JOHN M. OAKLEY,
120,086



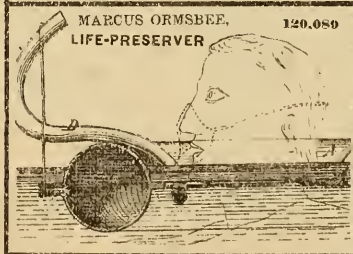
120,087 ADOLF OEHME
BENDING AND CHANNELING HORSESHOES

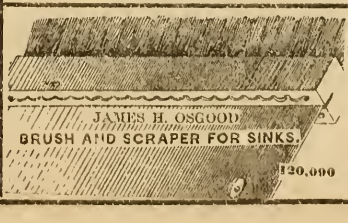


120,088 ADOLF OEHME.
BENDING THE CALKS ON HORSESHOES



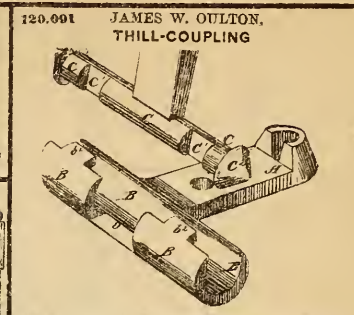
MARCUS ORMSBEE,
LIFE-PRESERVER 120,089



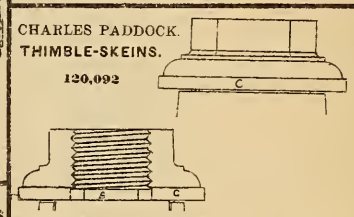


JAMES H. OSGOOD.
BRUSH AND SCRAPER FOR SINKS.
120,090

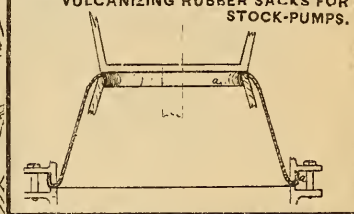
120,091 JAMES W. OULTON,
THILL-COUPLING



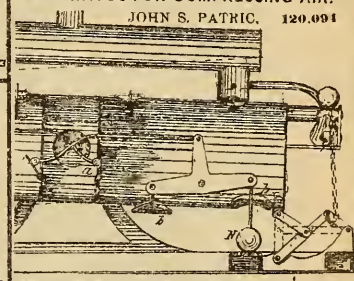
CHARLES PADDOCK.
THIMBLE-SKEINS.
120,092



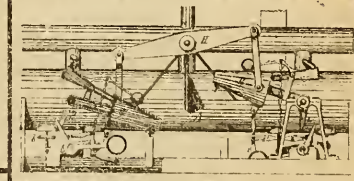
120,093 JOHN S. PATRIC,
VULCANIZING RUBBER SACKS FOR STOCK-PUMPS.



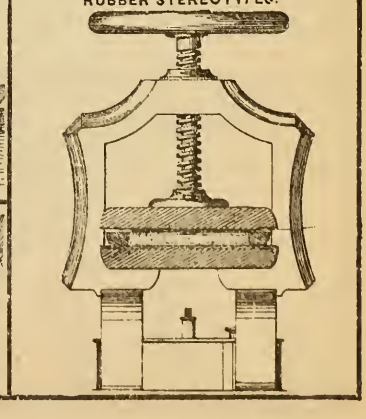
APPARATUS FOR COMPRESSING AIR.
JOHN S. PATRIC. 120,094

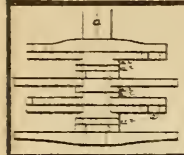


120,095 JOHN S. PATRIC,
APPARATUS FOR CONDENSING AIR



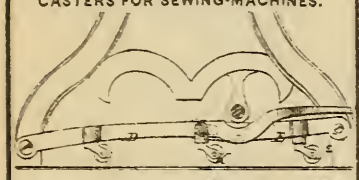
120,096 HENRY D. PERKY,
RUBBER STEREOTYPES.



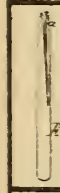


120,097 HENRY S. POTTER. CHURN-DASHER

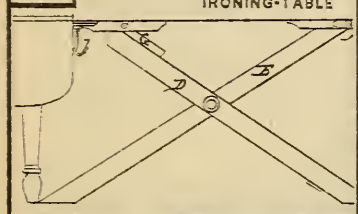
120,098 GEORGE K. PROCTOR. CASTERS FOR SEWING-MACHINES.



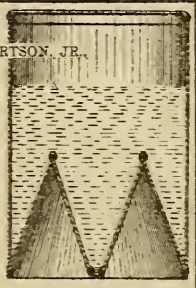
120,100 WILLIAM READING. COW-MILKERS.



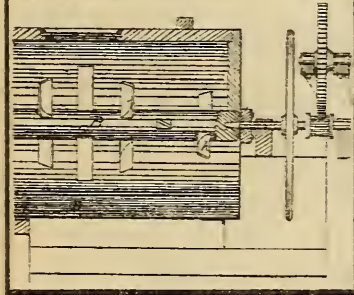
120,101 THOMAS REED. IRONING-TABLE



120,102 RICHARD L. ROBERTSON, JR. STEAM-BOILER

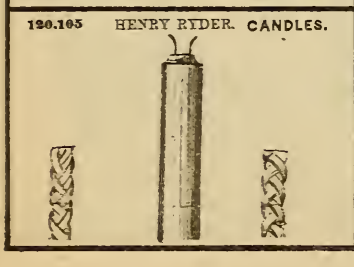


120,103 LEWIS RUNYON. CHURN

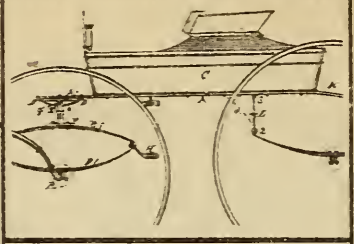


120,104 JOSEPH F. RUSLING. BALE-TIE

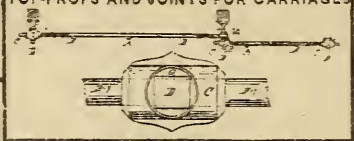
120,105 HENRY RYDER. CANDLES.



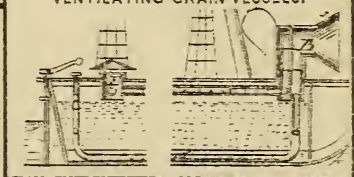
120,106 CYRUS W. SALADEE. CARRIAGE



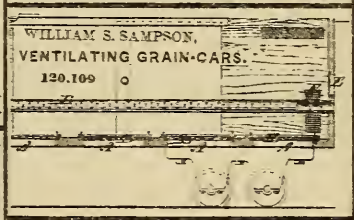
120,107 CYRUS W. SALADEE. TOP-PROPS AND JOINTS FOR CARRIAGES



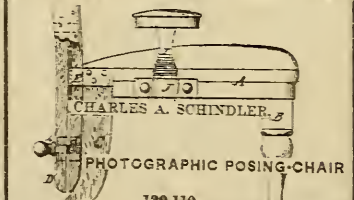
120,108 WILLIAM S. SAMPSON. VENTILATING GRAIN-VESSELS.



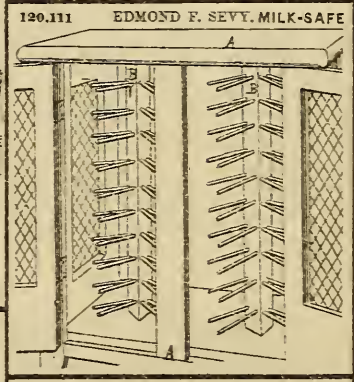
WILLIAM S. SAMPSON. VENTILATING GRAIN-CARS. 120,109



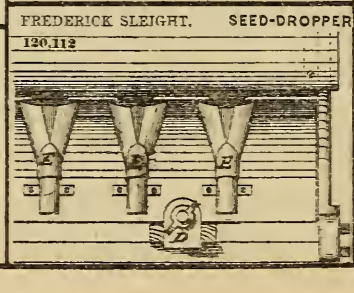
CHARLES A. SCHINDLER. PHOTOGRAPHIC POSING-CHAIR 120,110



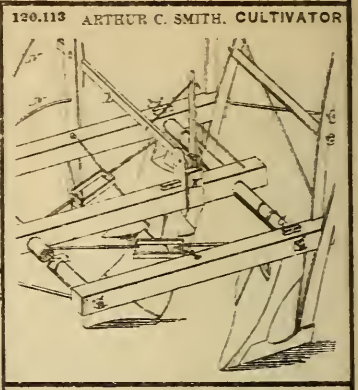
120,111 EDMOND F. SEVY. MILK-SAFE



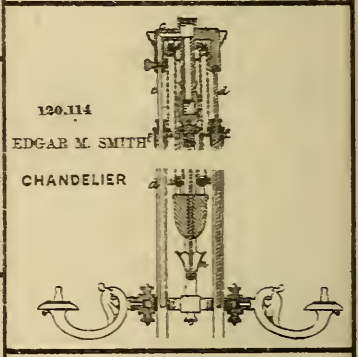
FREDERICK SLEIGHT. SEED-DROPPER 120,112



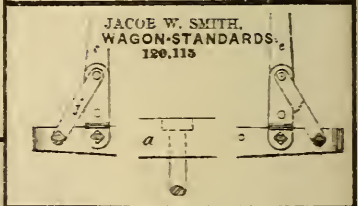
120,113 ARTHUR C. SMITH. CULTIVATOR



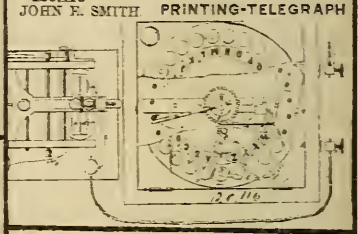
120,114 EDGAR M. SMITH CHANDELIER



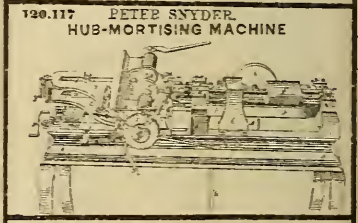
JACOB W. SMITH. WAGON-STANDARDS. 120,115



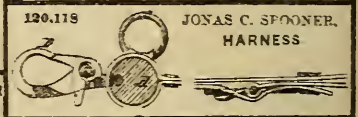
120,116 JOHN E. SMITH PRINTING-TELEGRAPH



120,117 PETER SNYDER. HUB-MORTISING MACHINE

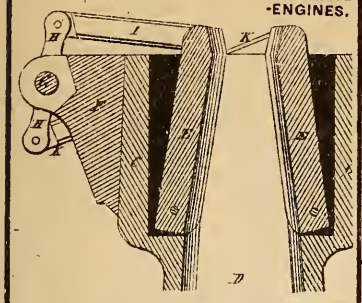


120,118 JONAS C. SPOONER. HARNESS

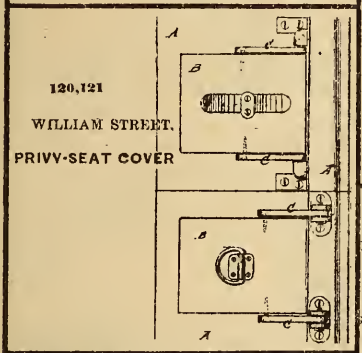


120,119 GEORGE STANSEL. HORSE-SHOEING REST

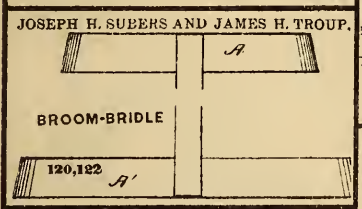
120,120 ORLANDO STEWART.
VARIABLE EXHAUSTS FOR LOCOMOTIVE -ENGINES.



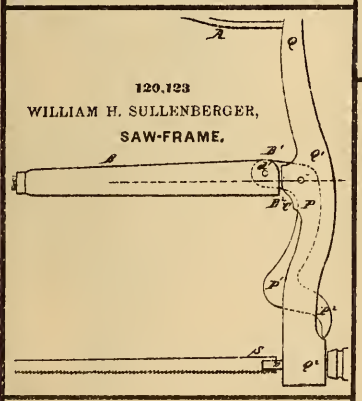
120,121
WILLIAM STREET.
PRIVY-SEAT COVER



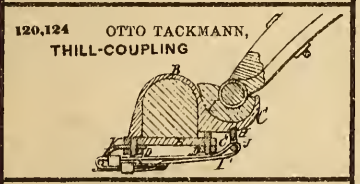
JOSEPH H. SUBERS AND JAMES H. TROUP.
BROOM-BRIDLE
120,122



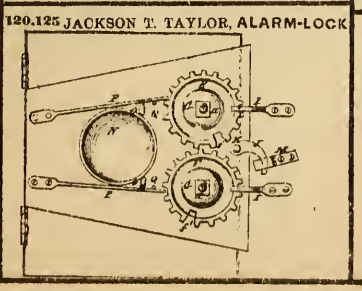
120,123
WILLIAM H. SULLENBERGER,
SAW-FRAME.



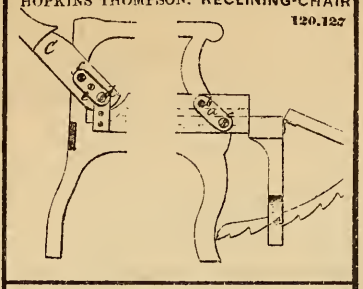
120,124 OTTO TACKMANN,
THILL-COUPLING



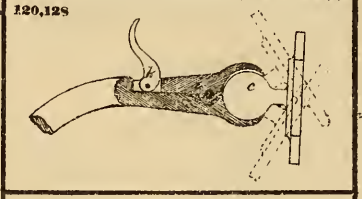
120,125 JACKSON T. TAYLOR, ALARM-LOCK



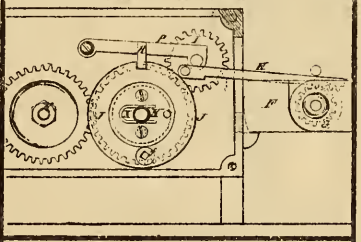
HOPKINS THOMPSON. RECLINING-CHAIR
120,127



THOMAS D. THOMPSON, HEAD-REST
120,128

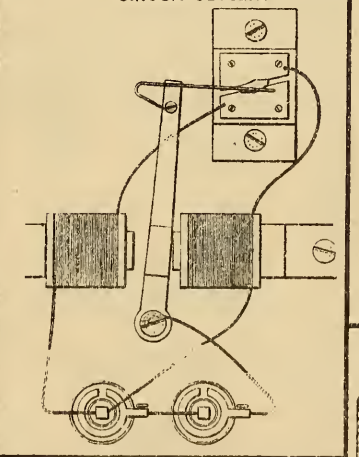


120,129 DANIEL L. TOWER.
PERMUTATION LOCK

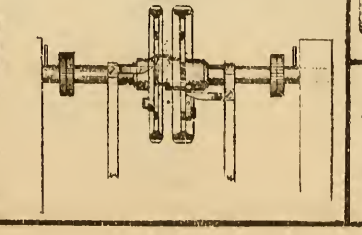


120,131 HANS TRULSEN.
WARPING-CHOCKS FOR VESSELS.

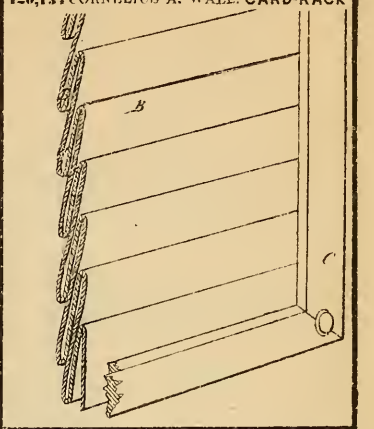
120,132 WILLIAM UNGER,
CIRCUIT-CLOSERS.



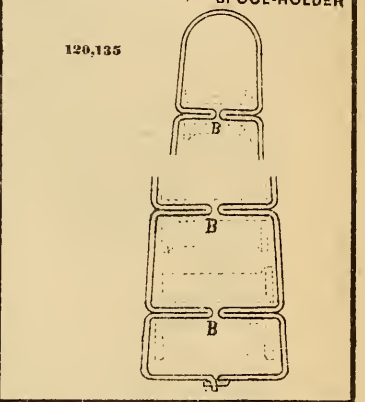
120,133 HENRY VAN HOEVENBERGH,
PRINTING-TELEGRAPHS.



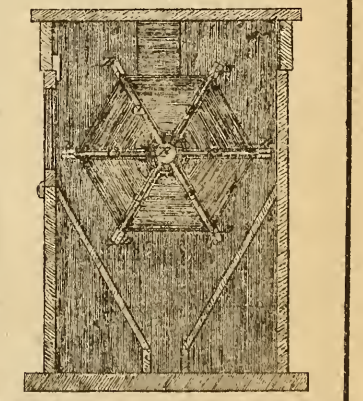
120,134 CORNELIUS A. WALL. CARD-RACK



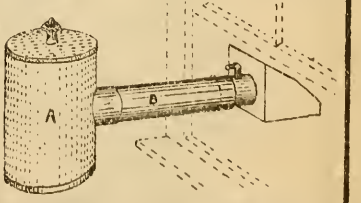
ANDREW W. WARREN, SPOOL-HOLDER
120,135



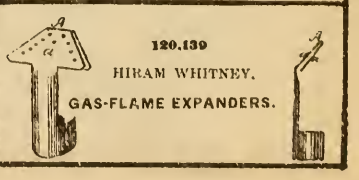
120,137 BENJAMIN C. WHITE.
MILL-BOLTS.



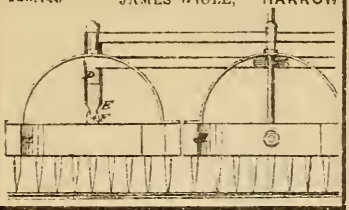
120,138 REUBEN WHITE. VENTILATOR



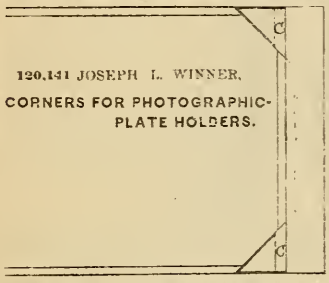
120,139
HIRAM WHITNEY.
GAS-FLAME EXPANDERS.



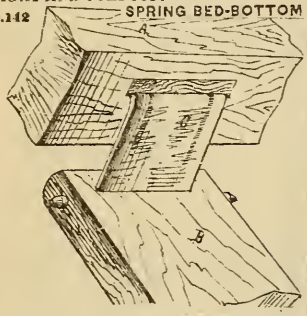
120,140 JAMES WIOLE, HARROW

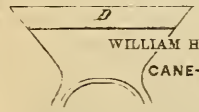


120,141 JOSEPH L. WINNER,
CORNERS FOR PHOTOGRAPHIC-PLATE HOLDERS.

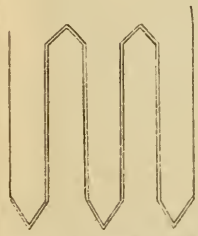


WRIGHT AND JOHNSON.
120,142 SPRING BED-BOTTOM

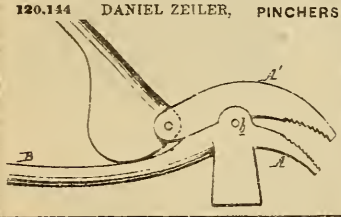




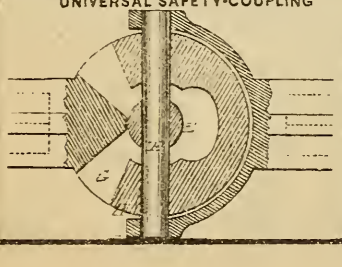
120,143
WILLIAM H. WOODWORTH,
CANE-STUBBLE HOES.



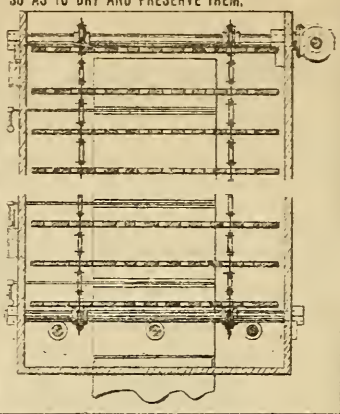
120,144 DANIEL ZEILER, PINCHERS.



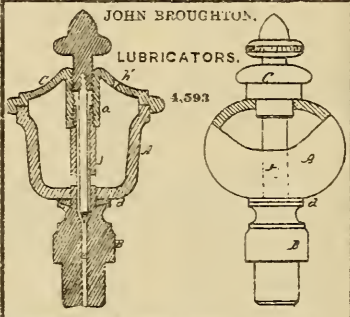
120,145 GUSTAVUS H. ZSCHECH,
UNIVERSAL SAFETY-COUPLING

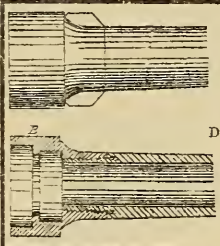


4,592 CHARLES ALDEN.
TREATING VEGETABLE AND ANIMAL SUBSTANCES SO AS TO DRY AND PRESERVE THEM.



JOHN BROUGHTON.
LUBRICATORS.
4,593





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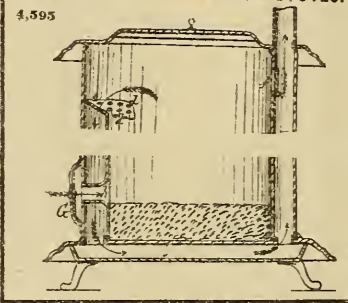
DAVID DALZELL.
AXLE-BOXES.

JOHN M. FRENCH, JR. HEATING-STOVES.
4,595



LYMAN F. MUNGER. PERMUTATION LOCK
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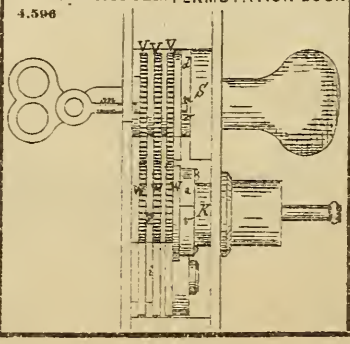
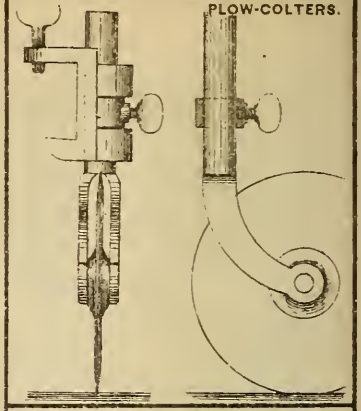
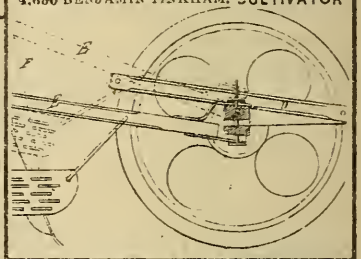


4,597 WILLIAM WARREN STILLMAN,
PLOW-COLTERS.



4,600 BENJAMIN TINKHAM, CULTIVATOR



WILLIAM WESTLAKE. LANTERNS.
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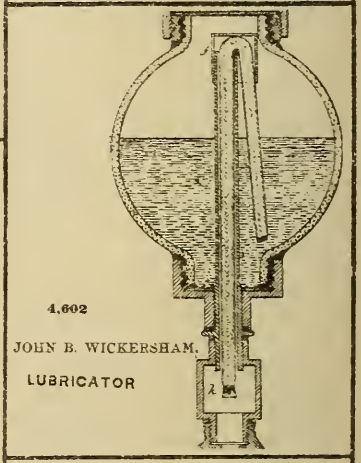

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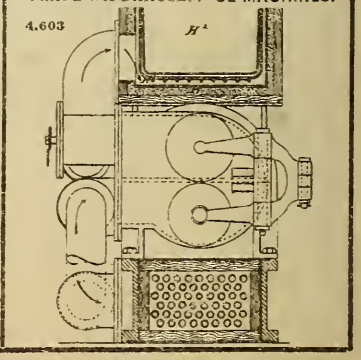
JOHN B. WICKERSHAM.
LUBRICATOR

FRANZ WINDHAUSEN. ICE-MACHINES.
4,603



ILLUSTRATIONS OF PATENTS
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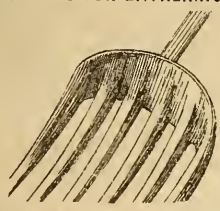
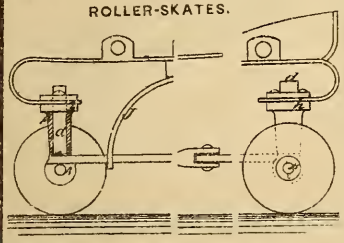
THE UNITED STATES PATENT OFFICE

OCTOBER 24, 1871.

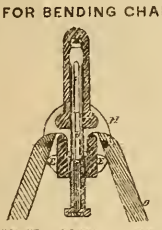
120,146 NOBLE S. BARNUM.
SCOOPS FOR GATHERING STONES.



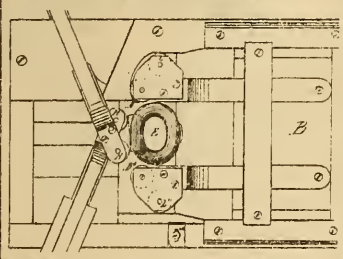
120,147 JOHN L. BOONE,
ROLLER-SKATES.



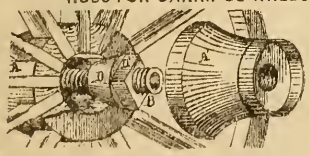
120,148 HENRY BOYD.
MACHINES FOR BENDING CHAIN-LINKS.



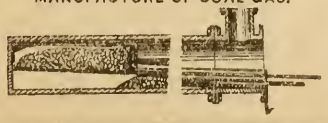
120,149 JAMES R. BROWN,
BOLT-CUTTERS.



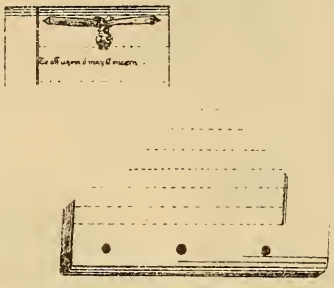
120,150 JOSEPH Y. BURWELL,
HUBS FOR CARRIAGE-WHEELS.



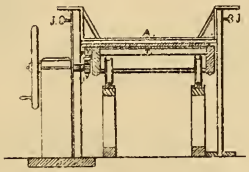
120,151 DARIUS DAVISON,
MANUFACTURE OF COAL-GAS.



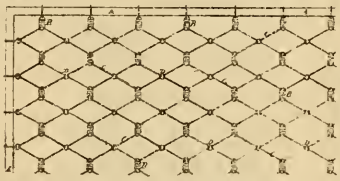
120,152 FOLEY AND JOHNSON.
CAP AND OTHER PAPERS.



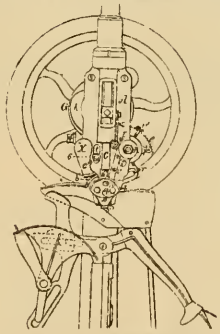
120,153 CHARLES L. FOWLER,
ROOFING-MACHINES.



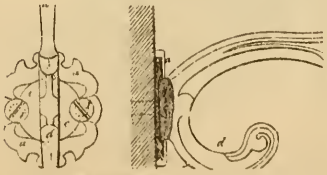
GARDNER, LOWE, WOOD, PICKERING.
120,154 SPRING MATTRESSES.



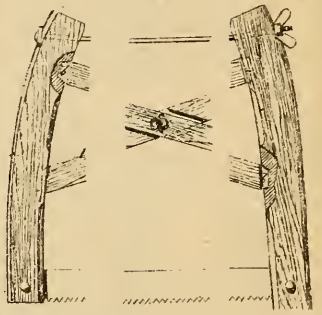
120,155 LOUIS GODDU.
MACHINES FOR NAILING SHOE-SOLES.



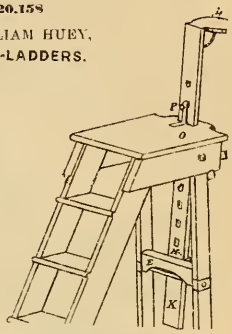
120,156 HOOKS FOR HATS, COATS, &c.
ALBERT J. GOODRICH.



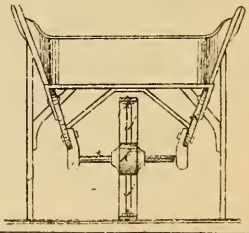
120,157 WILLIAM HANKIN.
BUCK-SAW FRAMES.



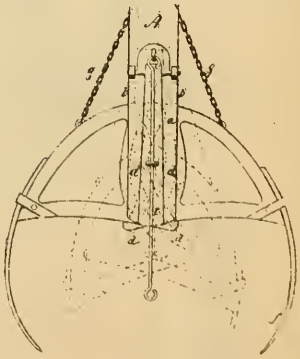
120,158 WILLIAM HUEY,
STEP-LADDERS.



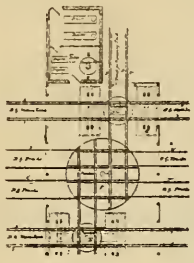
WILLIAM McKIBBIN,
120,159 WHEELBARROWS.



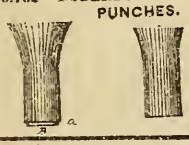
120,160 PETER J. MOOSE AND JONATHAN KUHN,
HORSE HAY-FORKS.



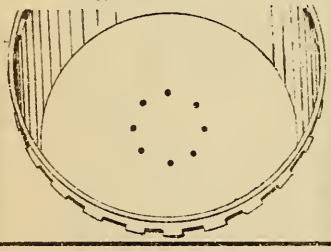
120,161 WILLIAM KERR MUIR,
TURN-TABLES FOR CHANGING GAUGE OF CARS.



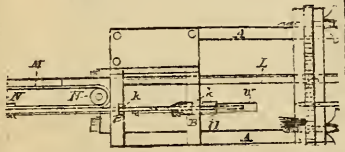
120,162 ROBERT J. MULLEN
PUNCHES.



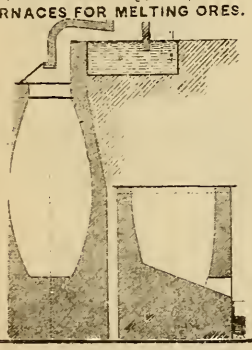
120,163 EDGAR G. NICHOLS,
HAT-VENTILATORS.



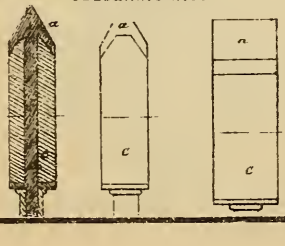
120,164 JOSEPH PICKERING
BRUSH-MAKING MACHINES.



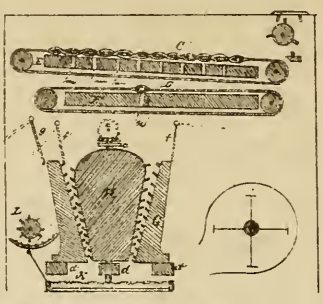
120,165 WILLIAM QUANN,
FURNACES FOR MELTING ORES.



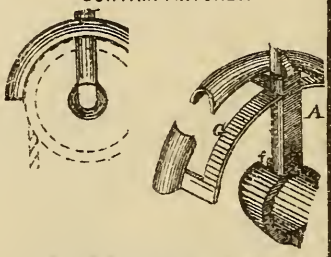
120,166 JOHN C. REYNOLDS,
SOLDERING-IRONS.



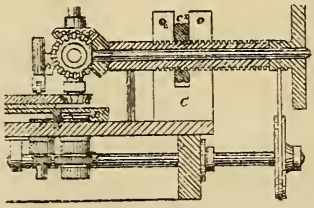
120,167 HENRY RIES.
THRASHING AND HULLING-MACHINES.



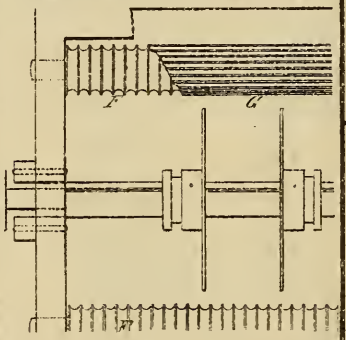
120,168 ANTHONY ROELOFS.
CURTAIN-FIXTURES.



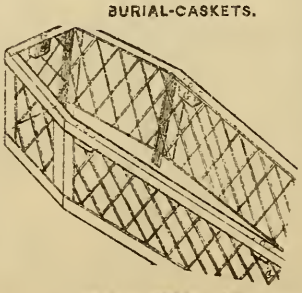
120,169 THOMAS ROSS.
STONE-DRESSING MACHINES.



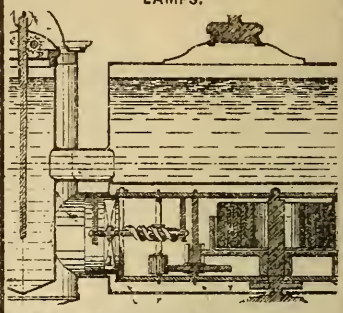
120,170 JESSE K. SANBORN,
MACHINES FOR EDGING BOARDS.



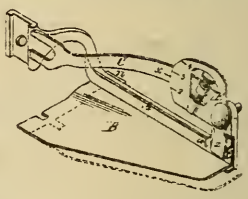
120,171 JOHN SCOTT,
BURIAL-CASKETS.



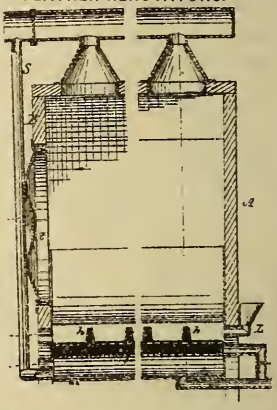
120,172 GEORGE W. THOMPSON.
LAMPS.



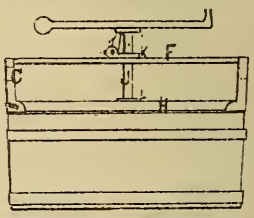
120,173 EDWIN J. TOOF,
RUFFLING ATTACHMENTS
FOR SEWING-MACHINES.



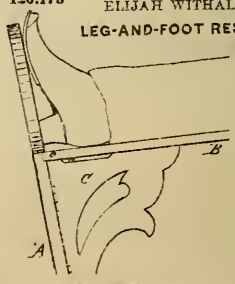
JOHN WELLFARE AND FRED CHAMPAGNE
120,174 FEATHER-RENOVATORS.



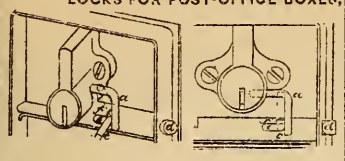
STEPHEN WILLIAMS AND HENRY McNEILL
120,175 WASHING-MACHINES.



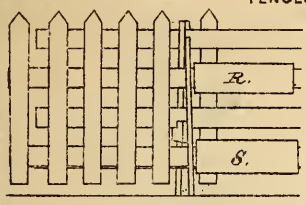
120,176 ELIJAH WITHALL,
LEG-AND-FOOT RESTS.



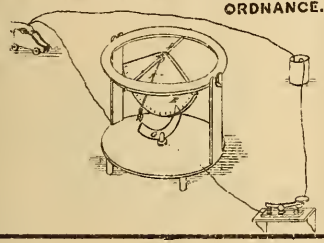
120,177 SILAS N. BROOKS, LOCKS FOR POST-OFFICE BOXES.



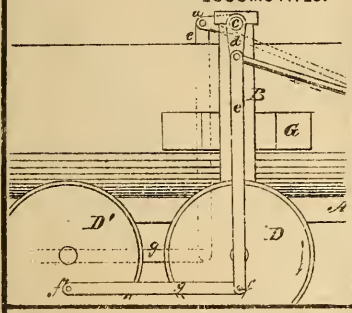
120,178 PETER CHASE YOST, FENCES.



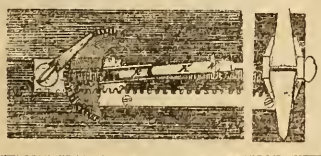
120,179 HENRY ARDEN, APPARATUS FOR DISCHARGING ORDNANCE.



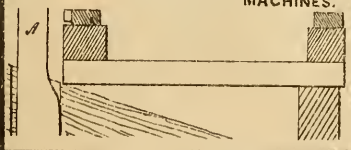
120,180 WILLIAM D. ARNETT, LOCOMOTIVES.



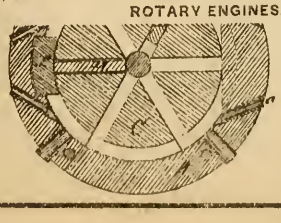
120,181 STEPHEN A. BELL, MACHINES FOR PICKING MILLSTONES.



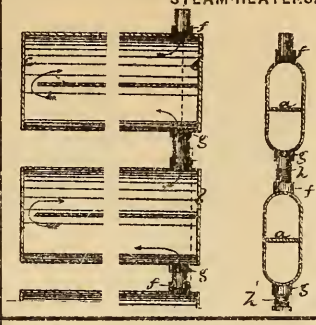
120,182 M. C. BULLOCK, CUTTERS FOR ROCK-CHANNELING MACHINES.



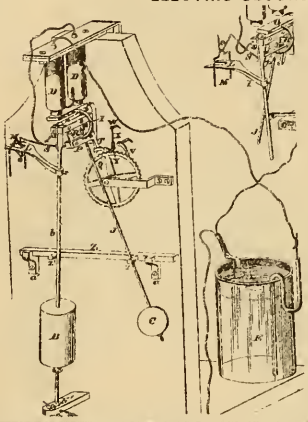
120,183 WARREN CASE, ROTARY ENGINES.



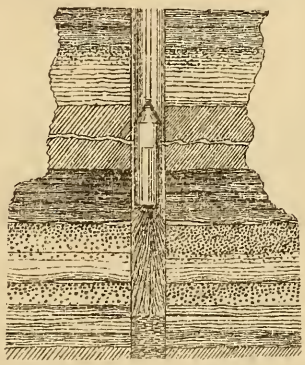
120,184 EDWARD C. CLAY, STEAM-HEATERS.



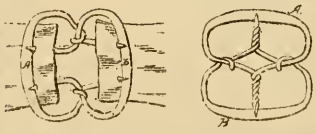
120,185 WILLIAM M. DAVIS, ELECTRIC CLOCKS.



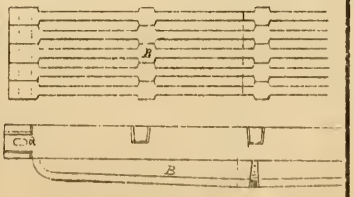
120,186 JAMES DICKEY, REMOVING OBSTRUCTIONS IN OIL-WELLS.



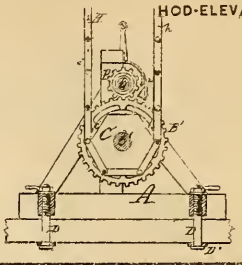
120,187 ELLIOTT F. DRIGGS, BUCKLES.



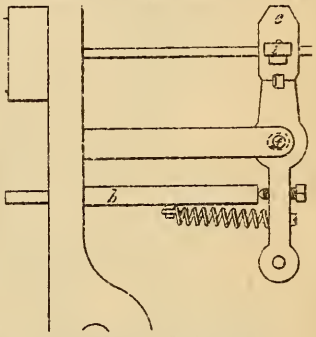
120,188 ALEXANDER W. FOSTER, JR., GRATE-BARS.



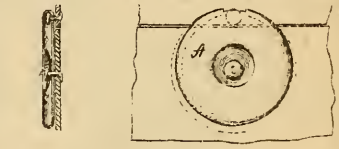
120,189 EDWARD H. GARRIGUES, HOD-ELEVATORS.



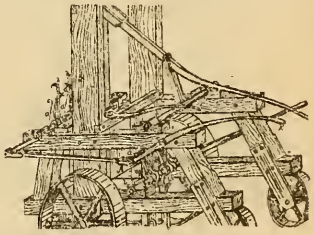
120,190 JOHN C. GOULD, NAIL-PLATE-FEEDING MACHINES.



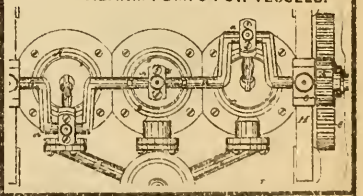
120,192 JOHN JAMES GREENOUGH, FASTENINGS FOR BOXES, &c.



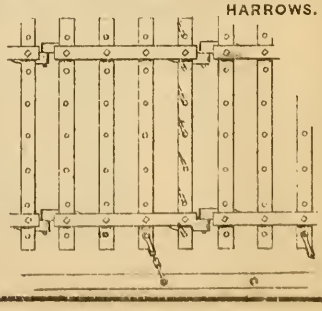
120,193 WILLIAM J. HARRIS, DRIVING WEDGES IN PAVEMENTS.



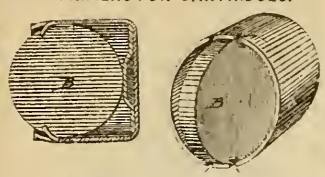
120,194 EZRA HASKELL, ALARM-PUMPS FOR VESSELS.



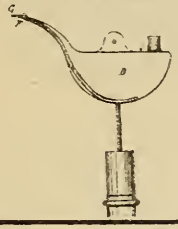
120,195 EDWARD W. HERENDEEN HARROWS.



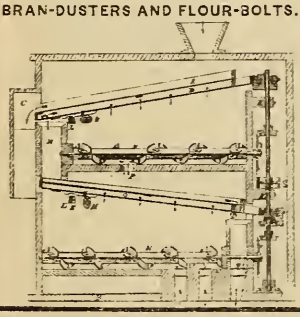
120,196 HOBBS AND OECUTT,
PRIMERS FOR CARTRIDGES.



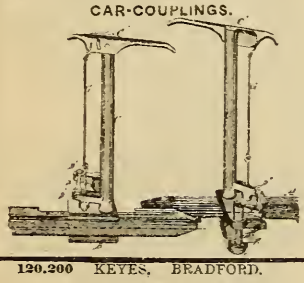
120,197 THOMAS N. HOUCHIN.
VERMIN EXTERMINATORS.



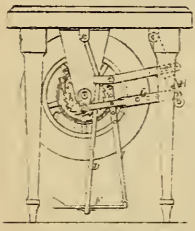
120,198 JAMES H. JONES.
BRAN-DUSTERS AND FLOUR-BOLTS.



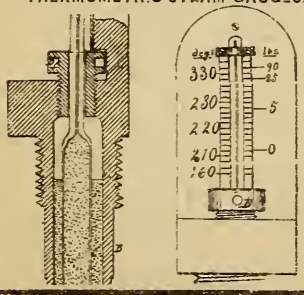
120,199 JAMES H. KENWORTHEY.
CAR-COUPLINGS.



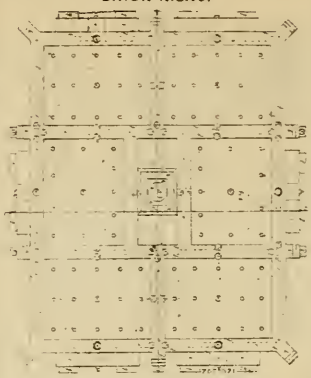
120,200 KEYES, BRADFORD.
TREADLE-MOTIONS.



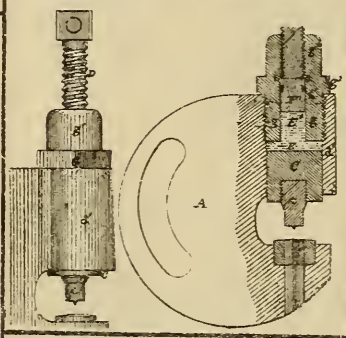
120,201 GEORGE LIGHTBODY.
THERMOMETRIC STEAM-GAUGES.



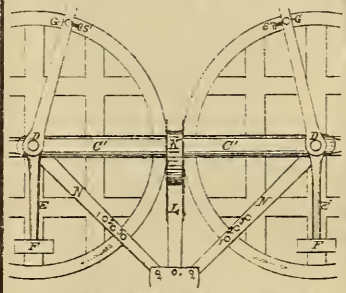
120,202 THALES LINDSLEY.
BRICK-KILNS.



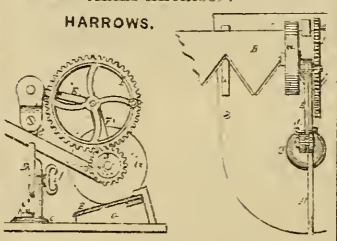
120,203 ROBERT LIVINGSTON.
HYDRAULIC PUNCHING-MACHINES.



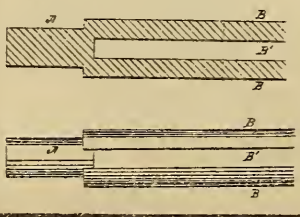
120,204 EDWIN ROBERT McCALL
HARVESTER-CUTTER GRINDERS.



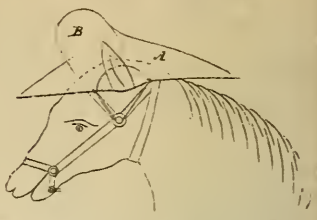
120,205 JAMES MATHISON.
HARROWS.



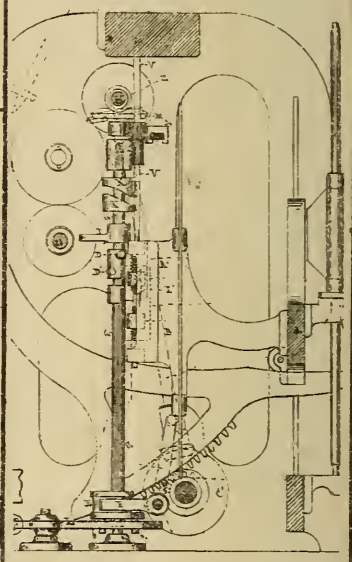
120,207 THOMAS E. McDONALD.
SPINDLES FOR WRINGER-ROLLS.



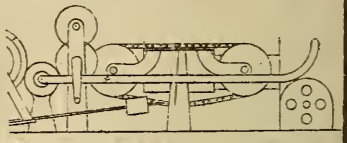
120,208 HUGH D. McGOVERN.
SUN-SHIELDS FOR HORSES.



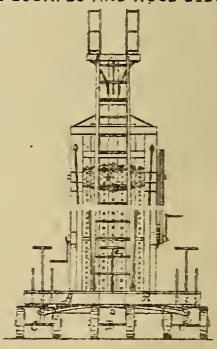
MORGAN AND McMULLAN.
120,209 ROVING-FRAMES.



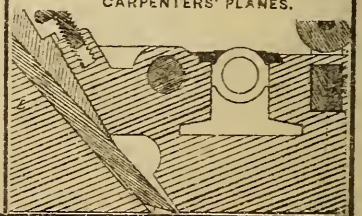
120,210 ADOLPH MÜLLER.
WOODEN PIPES FROM VENEERS.



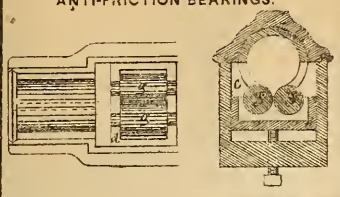
WILLIAM HENRY NOBLES, 120,211
FIRE-ESCAPES AND HOSE-ELEVATORS.



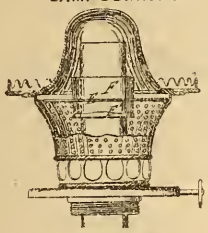
120,212 RUSSELL PHILLIPS.
CARPENTERS' PLANES.



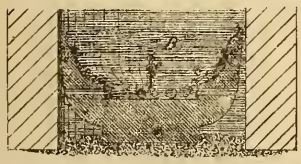
120,213 THOMAS RODDICK,
ANTI-FRICTION BEARINGS.



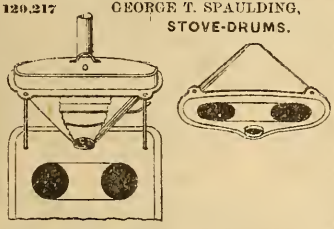
120,214 SAMUEL ROSS,
LAMP-BURNERS.



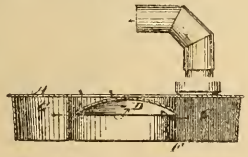
120,216 HENRY SMITH,
WELL-BOTTOMS.



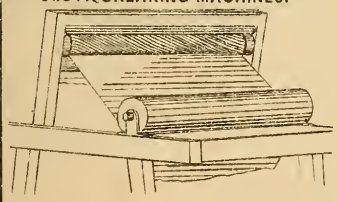
120,217 GEORGE T. SPAULDING,
STOVE-DRUMS.



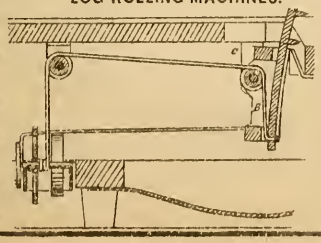
120,218 GEORGE F. STONE,
FOUNTAINS FOR WASH-BOILERS.



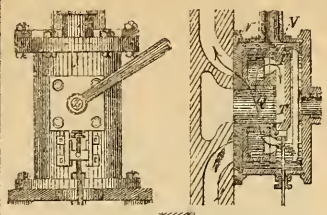
120,219 JOHN A. THURSTON,
CLOTH-SHEARING MACHINES.

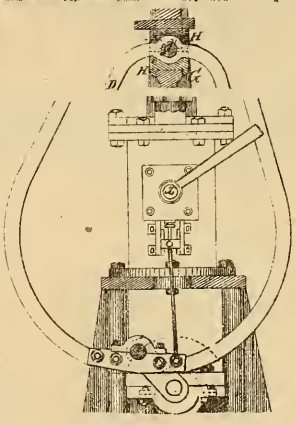


120,220 JOHN TORRENT,
LOG-ROLLING MACHINES.

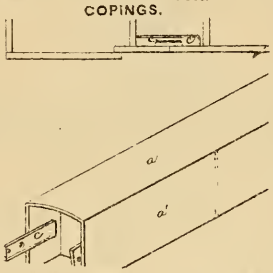


120,221 SAMUEL VAN EMON.
120,222 STEAM-ENGINES.

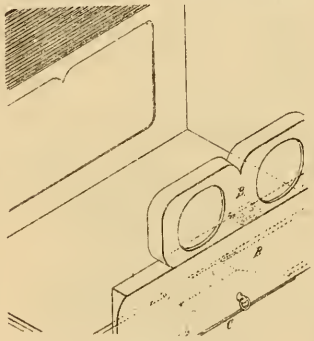




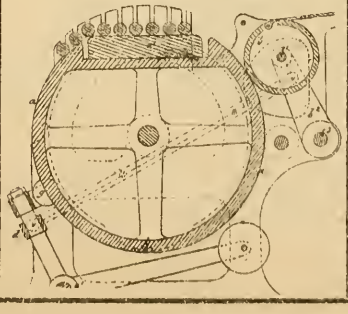
120,223 CYPRIAN WILLCOX.
COPINGS.



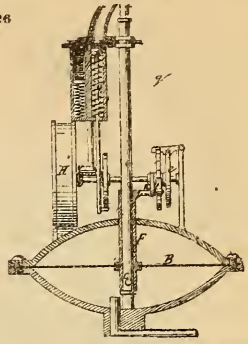
120,224 I. FLETCH WOODWARD.
STEREOSCOPIC PICTURE-CASES.



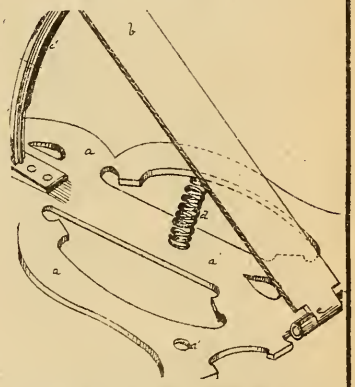
120,225 JOHN B. ADT,
PRINTING-PRESSES.



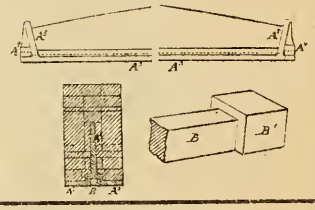
ALMON N. ALLEN AND RODNEY H. DEWEY
AUTOMATIC GAS-LIGHTERS.
120,226



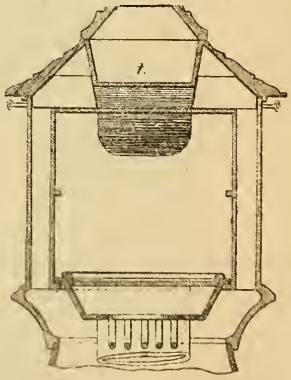
HENRY J. ASTHALTER,
120,227 PAPER-FILES.



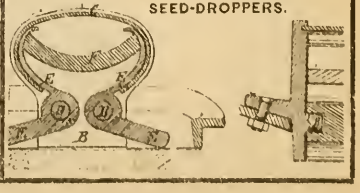
120,228 ZEPHANIAH S. AYRES,
GIRDERS.



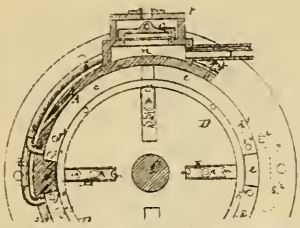
120,229 RODMAN BACKUS,
BASE-BURNING STOVES.



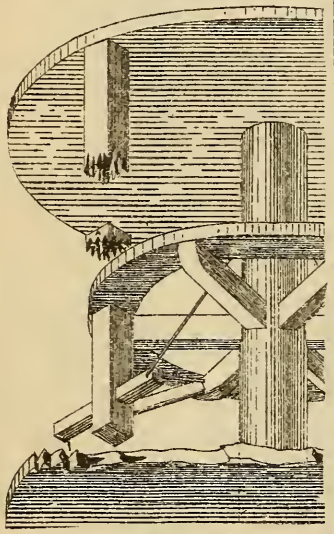
120,230 JOSEPH C. BARLOW,
SEED-DROPPERS.



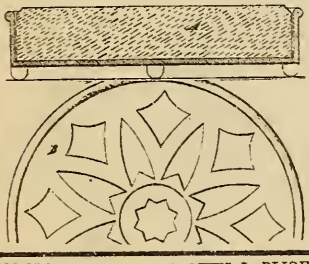
120,231 JOHN W. BARRIGER.
ROTARY ENGINES.



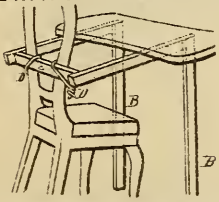
120,232 SANFORD BASKET,
HORSE-POWERS.



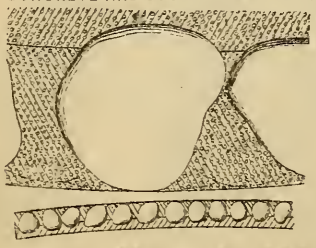
120,233 EMILIE A. BEARDSLEY.
HEATER AND STAND FOR TABLE PURPOSES.



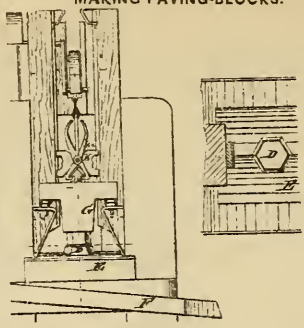
120,234, SAMUEL L. BLIGH.
TABLE ATTACHMENTS FOR CHAIRS.



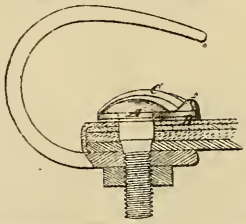
120,236 SAMUEL B. BRITTAN,
CONCRETE AND STONE PAVEMENTS.



120,237 SAMUEL WALLACE BROOKS.
MAKING PAVING-BLOCKS.



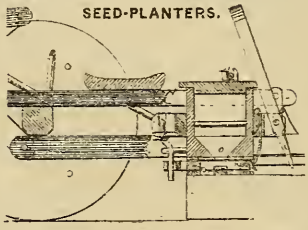
120,238 BERN L. BUDD,
CHECK-REIN FASTENERS.



120,239 BERN. L. BUDD,
CHECK-REIN FASTENERS.

120,240 NICHOLAS A. BUHLE,
CIGAR-CLAMPS.

120,241 EZRA E. CHESNEY.
SEED-PLANTERS.



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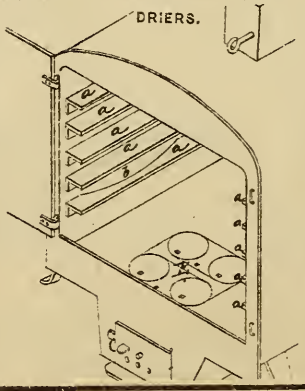
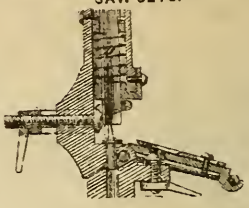
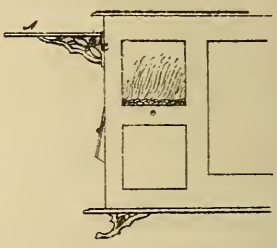
DRIERS.



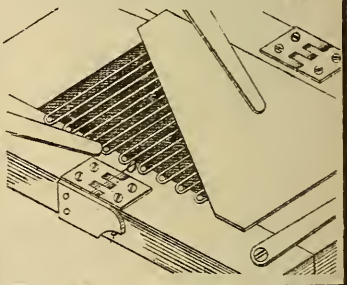
120,243 ERASTUS Y. CLARK,
SAW-SETS.



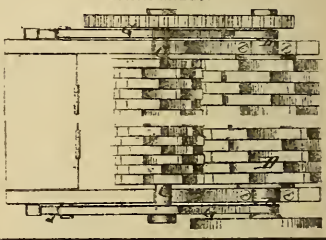
120,244 JAMES H. CODDING,
COOKING-STOVES.



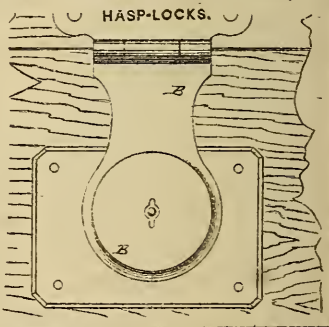
120,245 JOHN GEORGE COFFIN,
PHOTOGRAPHIC PRINTING-FRAMES.



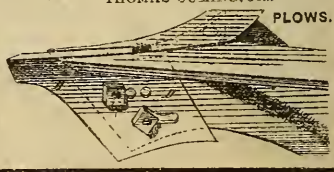
120,246 OWEN COOGAN,
BARK-MILLS.



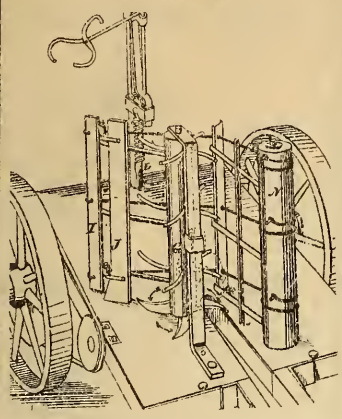
120,247 GEORGE CROMPTON,
HASP-LOCKS.



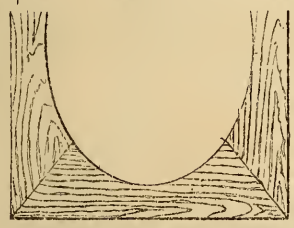
120,248 THOMAS CUMING, JR.,
PLOWS.



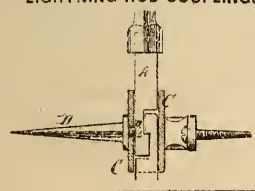
120,249 ELIJAH CULP.
CORN-HARVESTERS AND SHOCKERS.



120,250 HARRISON W. CURTIS.
WOODEN MATS FOR PICTURE-FRAMES.

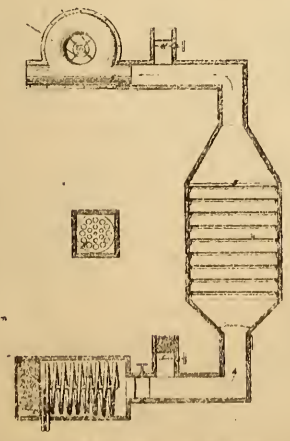


120,251 DAVID W. DEMOREST.
LIGHTNING-ROD COUPLINGS.

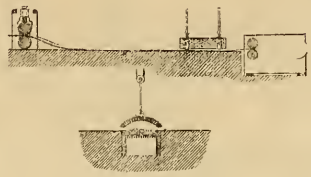


120,252 LEWIS ELLIOTT, JR.,
INDIA-RUBBER SHOES.

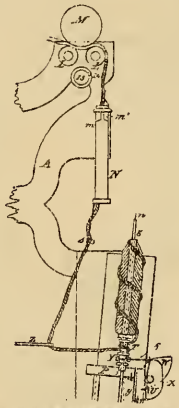
120,253 HERMANN ENDEMANN,
DRYING FRUITS, MEATS,



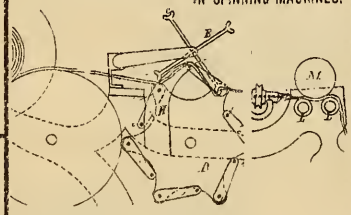
120,254 DAVID EYNON
FURNACES FOR THE MANUFACTURE OF SPIKES.



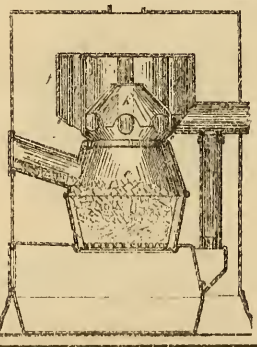
120,255 LUTHER W. FELT,
MACHINES FOR SPINNING WOOL.



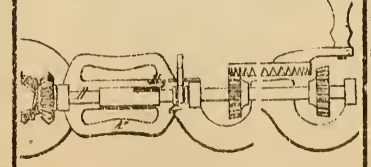
120,256 LUTHER W. FELT,
MECHANISMS FOR DELIVERING ROVING IN SPINNING-MACHINES.



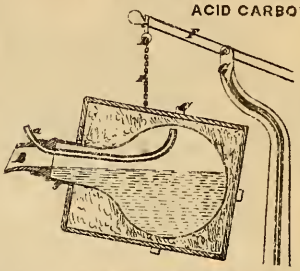
120,257 REUBEN R. FINCH,
HOT-AIR FURNACES.



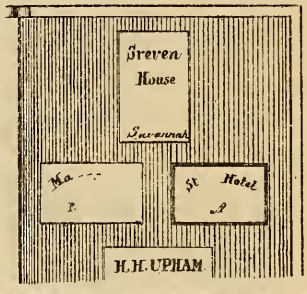
120,258 HENRY C. FISK,
GRINDERS FOR HARVESTER-CUTTERS.



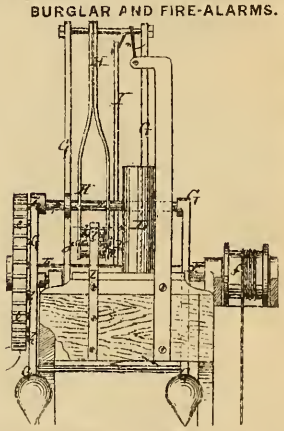
120,259 WILLIAM GEE.
APPARATUS FOR DISCHARGING ACID CARBOYS.



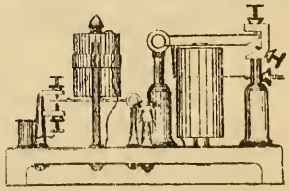
120,260 GEORGE W. HAWES,
ADVERTISING-ALBUMS.



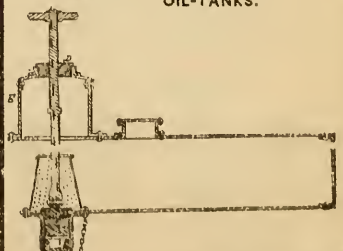
120,261 LOUIS GIEBRICH,
BURGLAR AND FIRE-ALARMS.



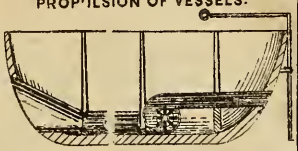
120,262 WEBSTER GILLETT,
TELEGRAPH APPARATUS.



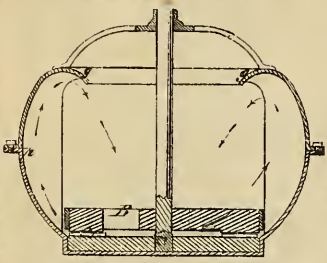
120,263 GEORGE W. GLASS,
OIL-TANKS.



120,264 JOSEPH S. GODFREY.
PROPULSION OF VESSELS.

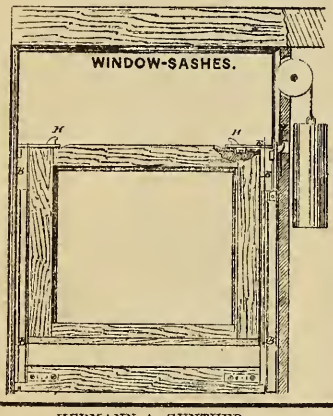


120,265 SIMEON L. GOULD,
PAPER-PULP ENGINES.

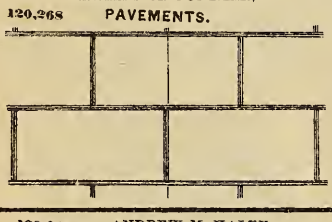


120,266 JOHN J. GRANT,
DIES FOR CUTTING SCREW-THREADS.

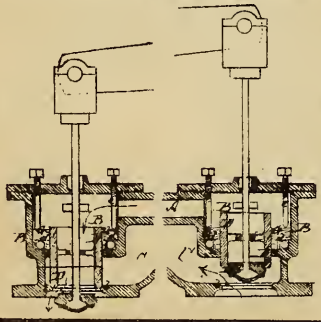
120,267 JOHN GROVES,
WINDOW-SASHES.



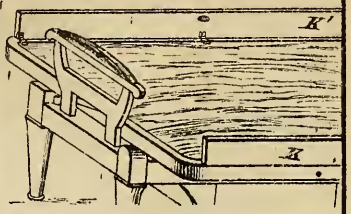
HERMANN A. GUNTHER,
120,268 PAVEMENTS.



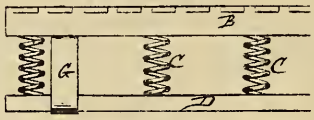
120,269 ANDREW M. HALEY,
VALVES FOR STEAMBOAT ENGINES.



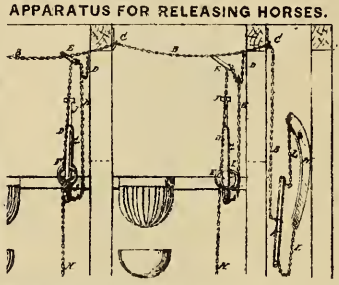
120,270 JOHN C. HALL,
COMBINED LOUNGE AND BEDSTEAD.



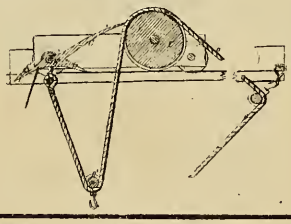
120,271 JAMES W. HAMPTON,
BED-BOTTOMS.



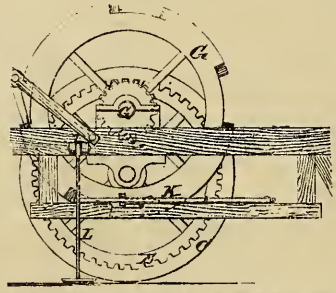
120,272 JAMES HARRISON,
APPARATUS FOR RELEASING HORSES.



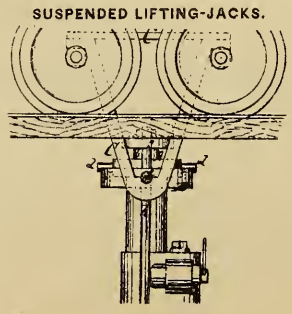
120,273 THEADORE HARTER.
HAY-ELEVATORS.



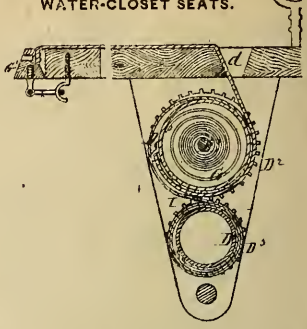
120,274 JULIUS W. HATCHER.
CULTIVATORS.



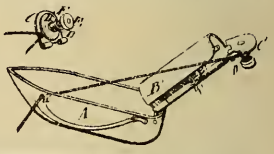
120,275 HECTOR C. HAVEMEYER.
SUSPENDED LIFTING-JACKS.



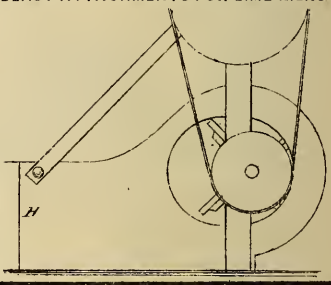
120,276 DAVID L. HAWKINS,
WATER-CLOSET SEATS.



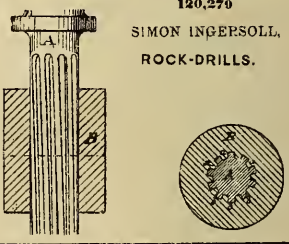
120,277 JAMES C. HERVEY,
SHUTTLES FOR SEWING-MACHINES.



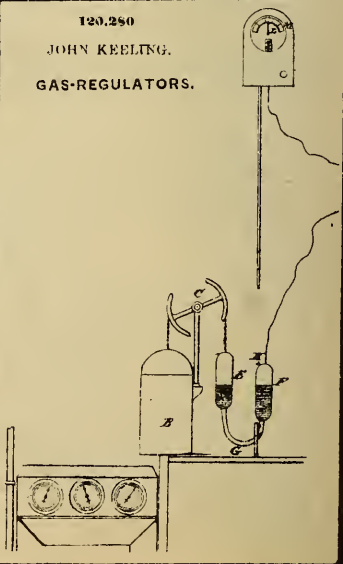
120,278 WILLIAM HOLLENBAUGH,
BLAST-ATTACHMENTS FOR LIME-KILNS



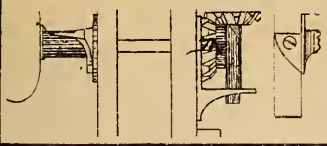
120,279
SIMON INGERSOLL,
ROCK-DRILLS.



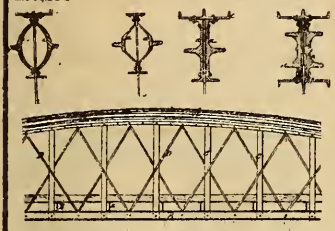
120,280
JOHN KEELING.
GAS-REGULATORS.



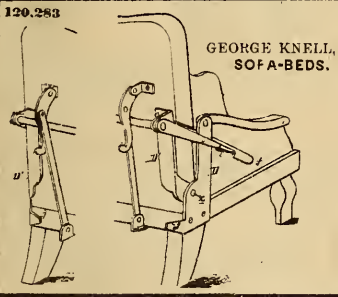
120,281 LESTER BRADNER KENNEY, SHUTTER-WORKERS.



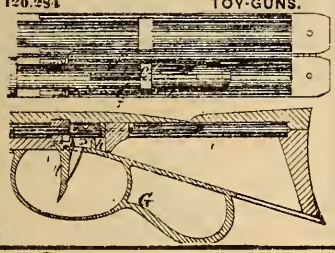
120,282 LANCELOT KIRKUP, BRIDGES.



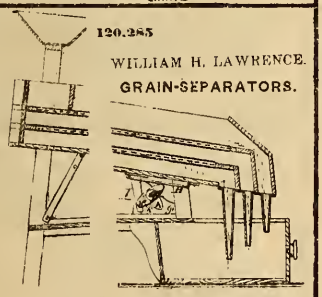
120,283 GEORGE KNELL, SOFA-BEDS.



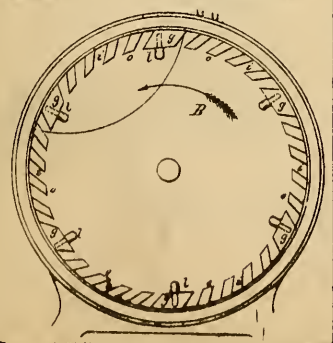
120,284 JACOB LAIR AND JACOB F. RAWZELL, TOY-GUNS.



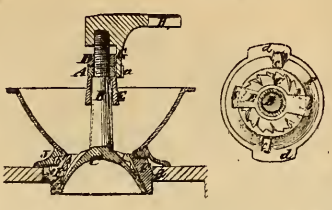
120,285 WILLIAM H. LAWRENCE, GRAIN-SEPARATORS.



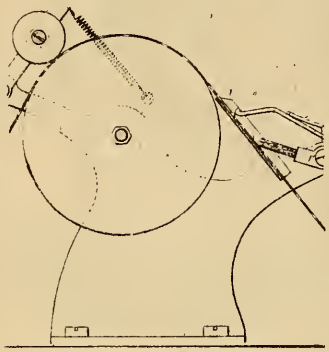
120,286 GEORGE LEACH, WASHING-MACHINES.



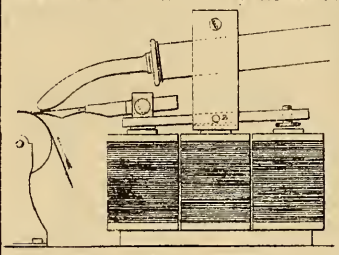
120,287 ANTOINE LEPAGE, COFFEE-MILLS.



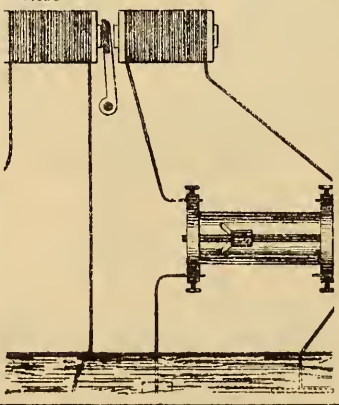
120,288 GEORGE LITTLE, TELEGRAPHIC TRANSMITTERS.



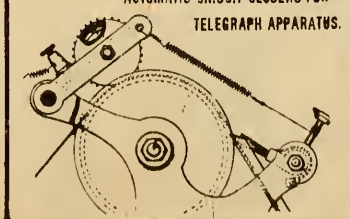
120,289 GEORGE LITTLE, TELEGRAPH-RECORDING INSTRUMENTS



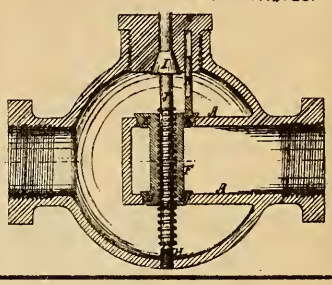
120,290 GEORGE LITTLE, TELEGRAPH APPARATUS.



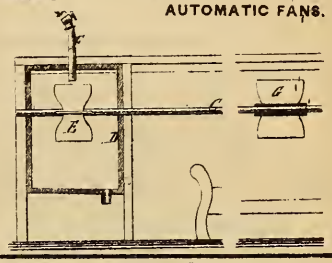
120,291 GEORGE LITTLE, AUTOMATIC CIRCUIT-CLOSERS FOR TELEGRAPH APPARATUS.



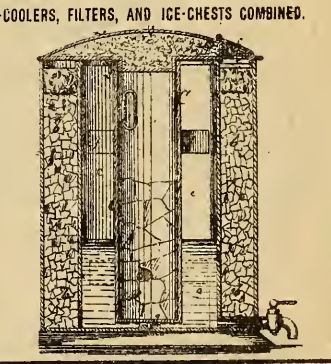
120,292 FRED. D. LIVINGSTON, STOP-VALVES.



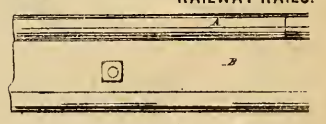
120,293 MARTIN LOCHNER, AUTOMATIC FANS.



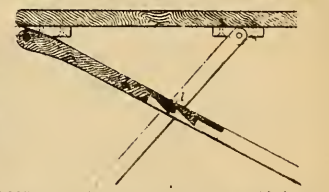
120,294 RICHARD LONG, COOLERS, FILTERS, AND ICE-CHESTS COMBINED.



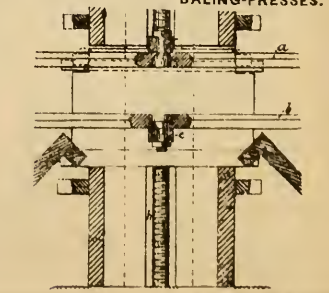
120,295 JOHN MAITLAND, RAILWAY RAILS.



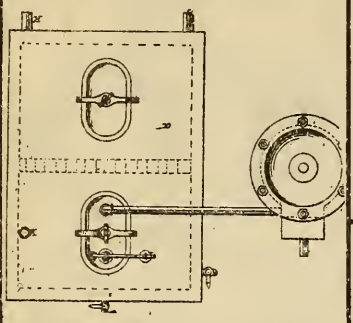
120,296 JAMES H. MALLORY, IRONING-TABLES.



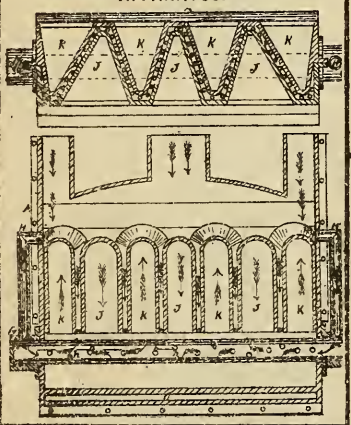
120,297 THOMAS E. MARABLE, BALING-PRESSES.



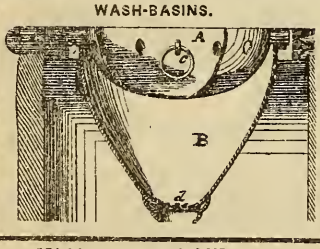
120,298 ROBERT MUDGE MARCHANT,
STEAM AND OTHER ENGINES.



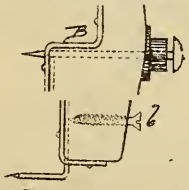
120,299 GEORGE MARLOW,
GAS-AND-SMOKE-CONSUMING APPARATUS.



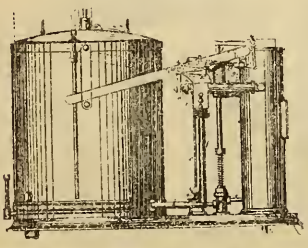
120,300 CHRISTOPHER C. MARSH,
WASH-BASINS.



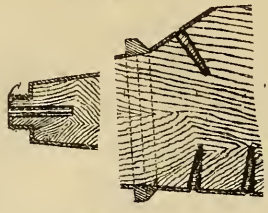
120,301 JOHN MASON,
SIDING-GAUGES.



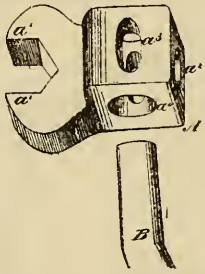
120,302 HIRAM S. MAXIM,
GAS-MACHINES.



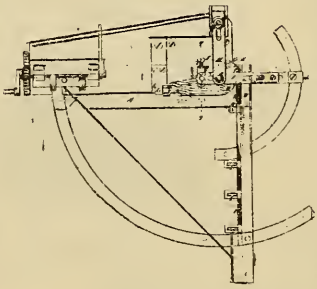
120,303 LORENZO MAYHEW,
AXLE-SKEINS.



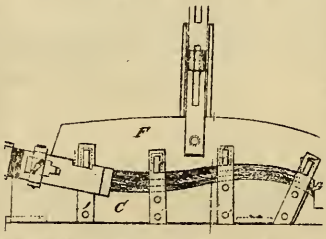
120,304 THOMAS D. McBRIDE,
WRENCHES.



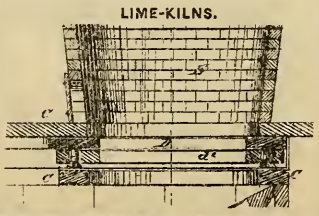
120,305 HIRAM McDONALD,
WOOD-BENDING MACHINES.



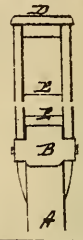
120,306 HIRAM McDONALD,
WOOD-BENDING MACHINES.



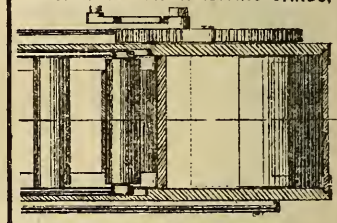
120,307 MERRIAM AND DIETRICK,
LIME-KILNS.



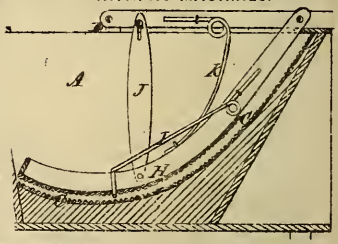
120,308 WILLIAM A. MIDDLETON,
FENCE-POSTS.



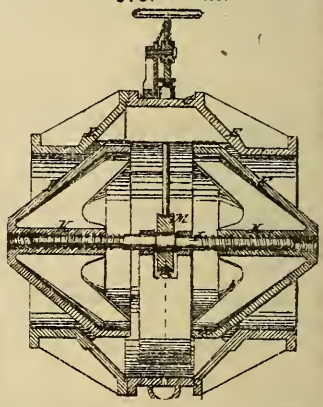
120,309 ISAAC M. MILLER,
APPARATUS FOR EXHIBITING CARDS.



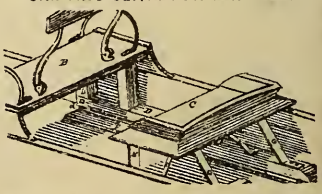
120,310 THOMAS W. MILLER,
WASHING-MACHINES.



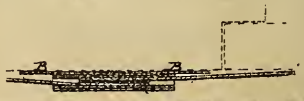
120,311 HERMANN MÜLLER
STOP-COCKS.



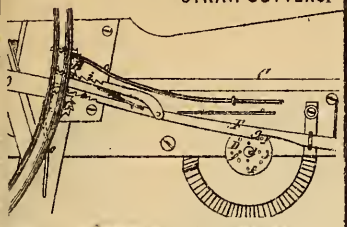
120,312 HENRY NAGLE.
SHIFTING-SEATS FOR VEHICLES.



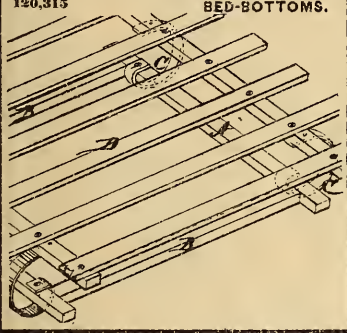
120,313 ROBERT WILLIAM NEWBERY.
BURGLAR-ALARMS.



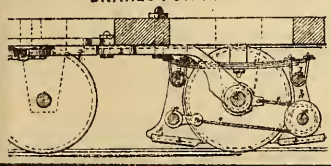
120,314 JOHN K. O'NEIL, STRAW-CUTTERS.



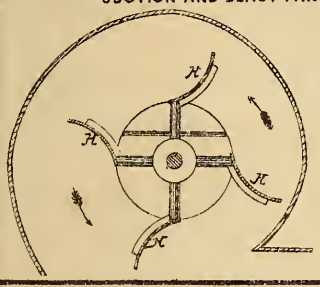
120,315 OTIS S. OSGOOD, BED-BOTTOMS.



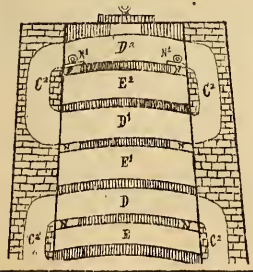
120,316 JOSEPH PARADIS, BRAKES FOR RAILWAY-CARS.



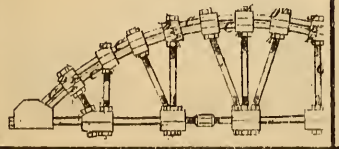
120,317 CHESTER R. PATTERSON, SUCTION-AND-BLAST FANS.



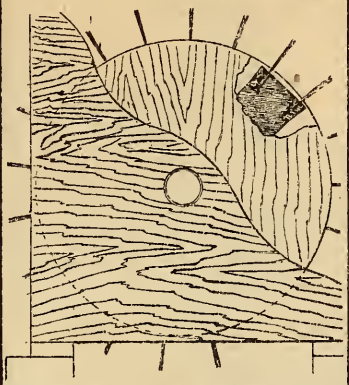
120,318 EDGAR PECKHAM, FURNACES FOR THE MANUFACTURE OF IRON.



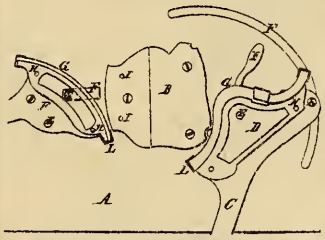
120,319 OLIVER H. PERRY AND WILLIAM H. ALLEN, BRIDGES.



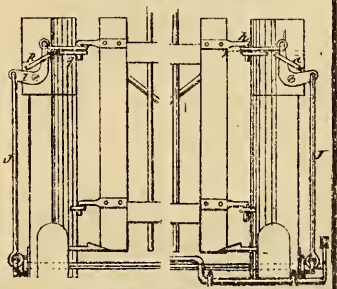
120,320 ARTHUR P. PEYROUX, CLOTH-STRIP BRISTLES.



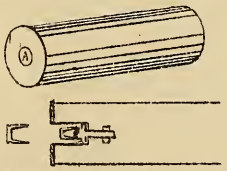
120,321 JOHN PHILLIPS, MACHINES FOR BENDING WOOD.



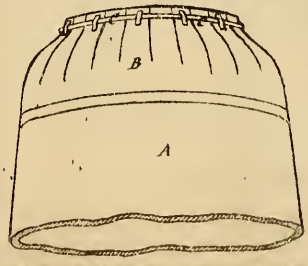
120,322 WILLIAM H. PHILLIPS, SELF-OPERATING GATES.



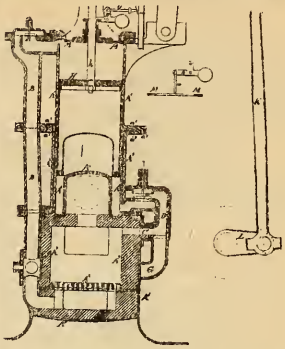
120,323 GEORGE R. PIERCE, METALLIC CARTRIDGES.



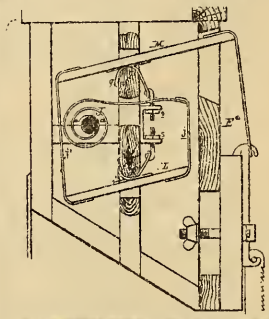
120,324 JAMES C. REED, ATTACHMENTS FOR PROTECTING SLEEVES AND CUFFS OF GARMENTS.



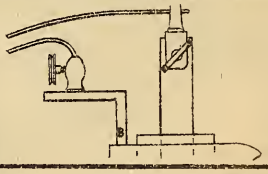
120,325 ALEXANDER K. RIDER, AIR-ENGINES.



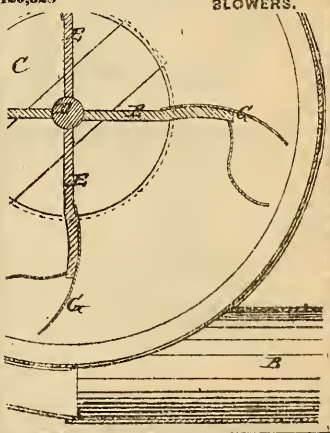
120,326 ISAAC R. RITTER, SCROLL-SAWS.



120,327 JOSEPH A. ROBBINS, GALVANIC BATTERIES.

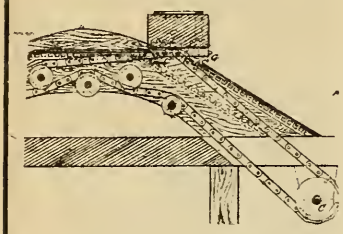


120,328 TIMOTHY ROGERS, BLOWERS.

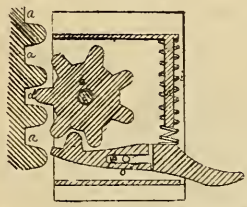


120,329 GUSTAV ROSENTHAL, GAS-FITTINGS.

JOHN SCHLEY, 120,332
STREET CROSSINGS.

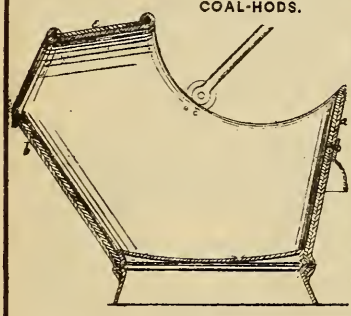


SYLVANUS H. SHAW,
120,334 SASH-HOLDERS.

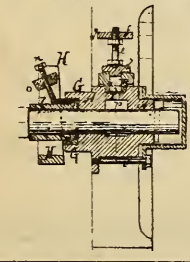


120,335 SIMON B. SIMON,
REPLACEABLE PIVOTS FOR WATCHES.

120,336 CHARLES SMITH,
COAL-HODS.

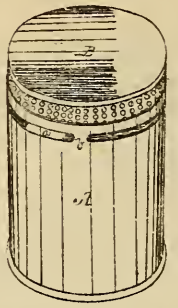


120,337 CYRUS SMITH,
LUBRICATING CAR-WHEELS.



120,338 METALLIC CARTRIDGES.
WILLIAM S. SMOOT,

120,339 CHARLES F. SPENCER,
DREDGE-BOXES.



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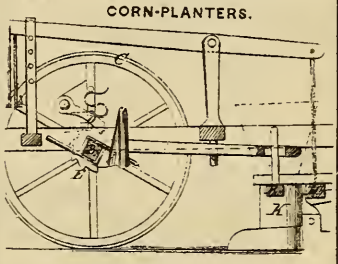
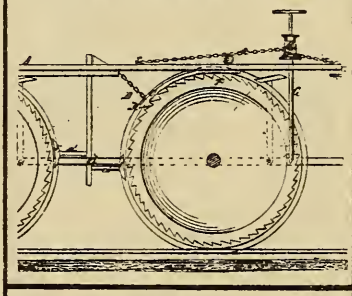
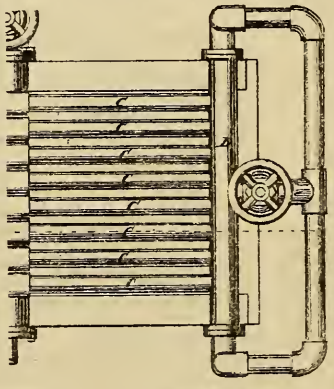
CORN-PLANTERS.



120,341 WILLIAM M. STARR.
CAR-BRAKES AND STARTERS.



120,342 THOMAS STONE,
WATER-GRATES FOR STEAM-BOILERS.



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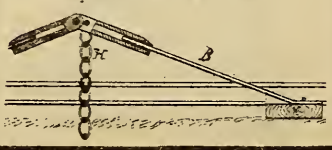
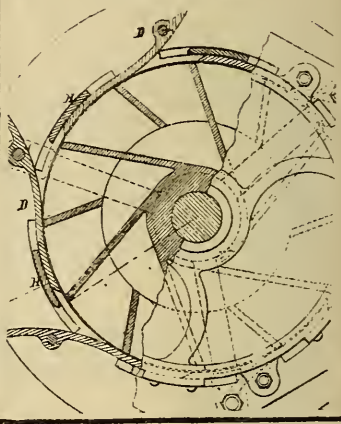
RAILWAY CATTLE-GUARDS.

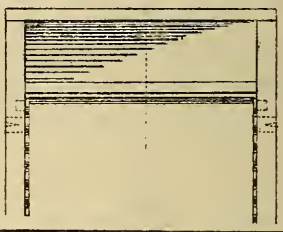


120,344 CHARLES RICHARD STUART,
SINGLE HARNESS.

120,345 SAMUEL D. TAYLOR,
WATER-WHEELS.



WILLIAM H. TOWERS,
120,346 WASH-BOARDS.



JUSTIN D. TOWNER AND J. HARRIS
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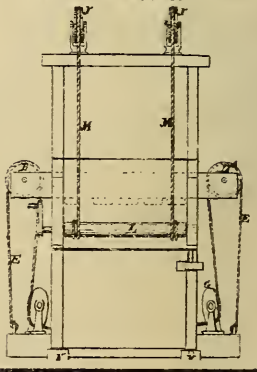

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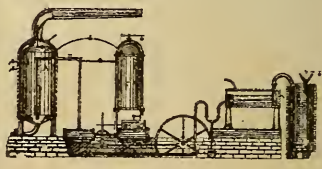
REFINING HYDROCARBON OILS.



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JOHN N. VALLEY AND JOHN A. STETSON,

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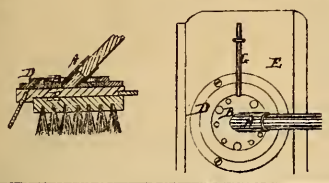
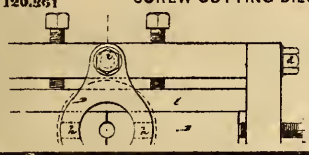


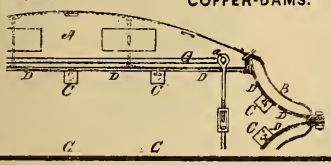
BENJAMIN L. WALKER,

120,351 SCREW-CUTTING DIES.



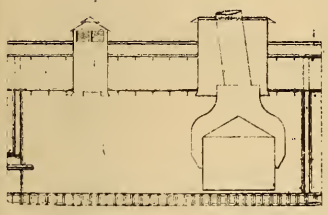
JOHN E. WALSH

120,352 COFFER-DAMS.



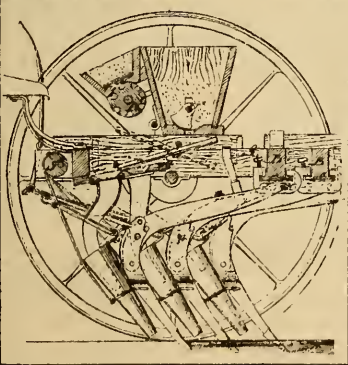
120,353 WILLIAM GRAY WARDEN,

VESSELS FOR CARRYING LIQUID CARGOES.



120,354 JACOB W. WEBB,

COMBINED SEEDERS AND CULTIVATORS.

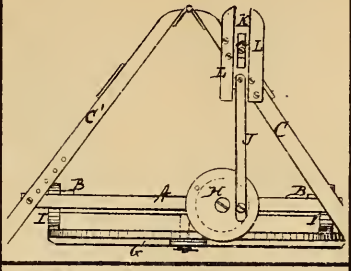


120,356 CALEB WHEELER,

HORSE-COLLAR FASTENINGS.

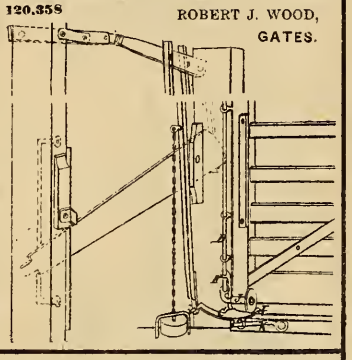
120 357 MYRON G. WOOD,

ANIMAL-POWERS.



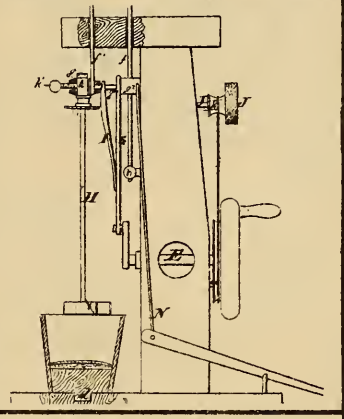
120,358 ROBERT J. WOOD,

GATES.



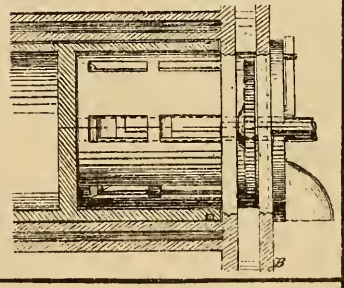
120,359 NATHANIEL TRUE WORTHLEY.

MEAT-CHOPPERS.



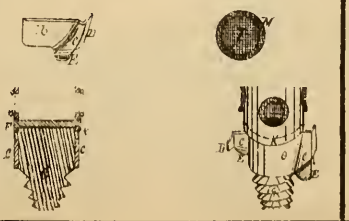
ROTARY STEAM-VALVES AND CUT-OFFS.

120,360 HUGH WRIGHT.



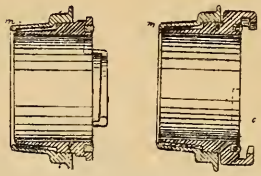
1,604 SOLOMON L. BIGNALL,

TUBE-WELLS.



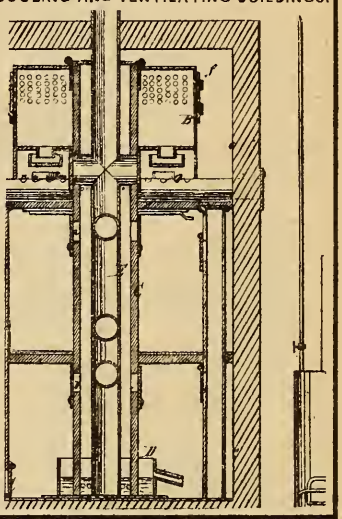
4,665 JAMES C. COOKE,

HOSE-COUPLINGS.



4,607 THEODORE KRAUSCH.

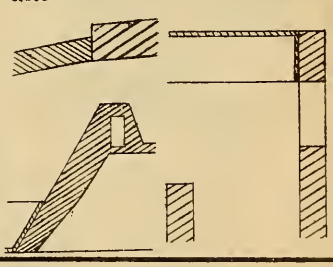
COOLING AND VENTILATING BUILDINGS.



HENDERSON ROSS AND JOHN H. CLEMENS

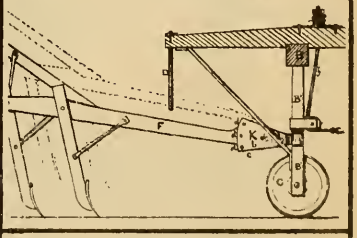
FURNACES FOR THE MANUFACTURE OF IRON AND STEEL.

4,609



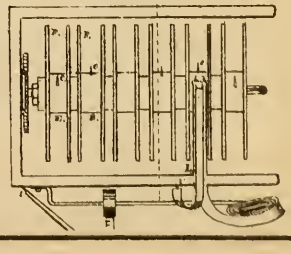
WILLIAM S. WEIR, JR.,

4,610 CULTIVATORS.



4,611 SAMUEL WHITAKER,

CASES FOR RIBBONS, LACES, &c.



ILLUSTRATIONS OF PATENTS

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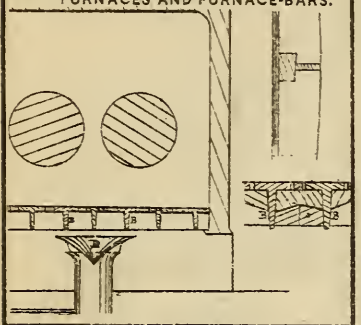
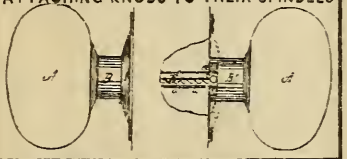
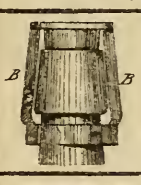
OCTOBER 31, 1871.

120,361 EMMET R. AUSTIN.
FURNACES AND FURNACE-BARS.



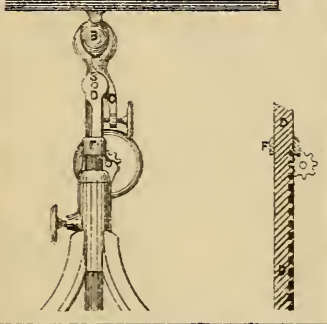
120,362 MILLS W. BARSE.
ATTACHING KNOBS TO THEIR SPINDLES

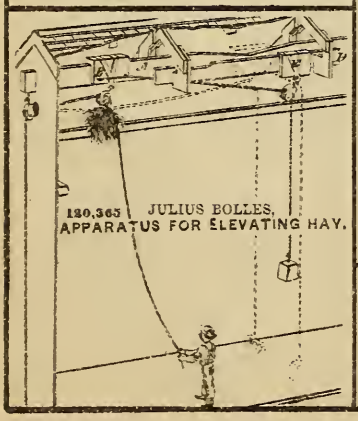




WILLIAM S. M. BEAL.
BOTTLE-FASTENING
120,363

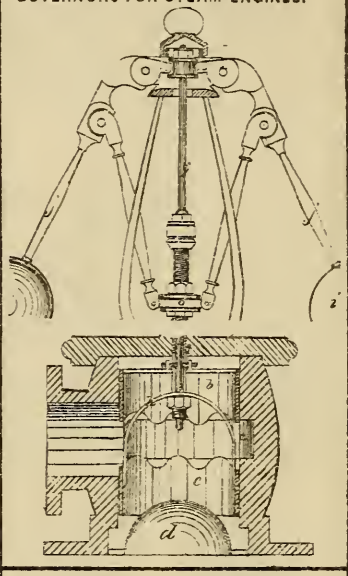
120,364 WILLIAM BELL.
DRAWING-STAND



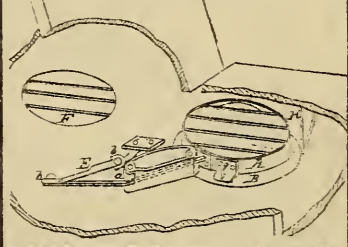


120,365 JULIUS BOLLES.
APPARATUS FOR ELEVATING HAY.

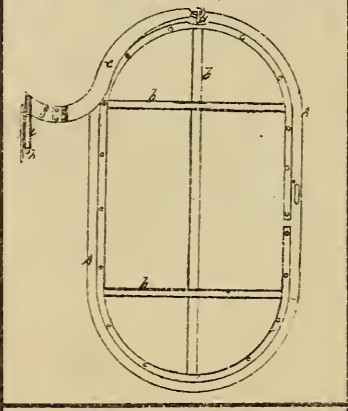
120,366 CHARLES P. BOWEN.
GOVERNORS FOR STEAM ENGINES.



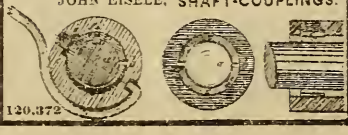
WILLIAM J. BRADSHAW.
120,367 EARTH-CLOSET



120,370 ANNA DAVIS. WARDROBE

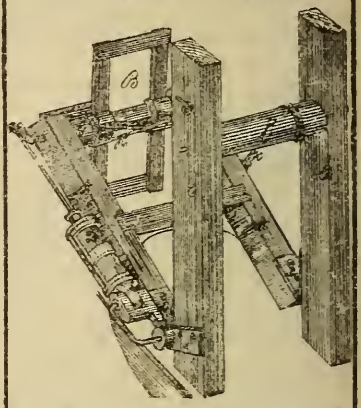


JOHN EISELE. SHAFT-COUPLINGS.

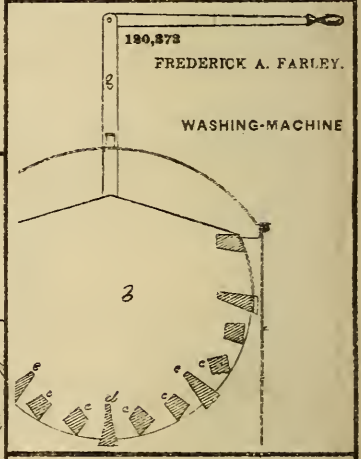


120,372

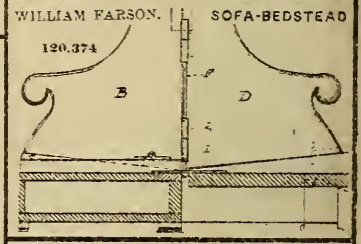
120,371 NATHANIEL T. EDSON.
PROPULSION OF CANAL-BOATS.



120,373
FREDERICK A. FARLEY.
WASHING-MACHINE

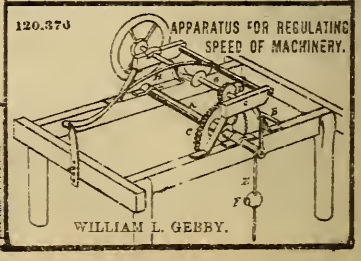


WILLIAM FARSON. SOFA-BEDSTEAD
120,374



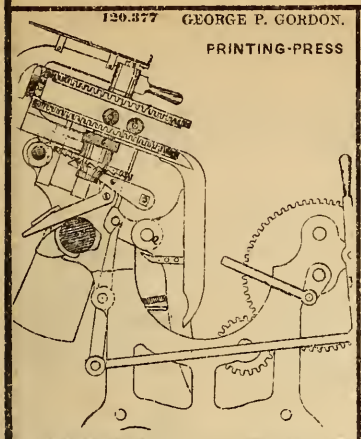
120,375 HENRY S. FROST. ANIMAL-TRAP

120,376 APPARATUS FOR REGULATING SPEED OF MACHINERY.

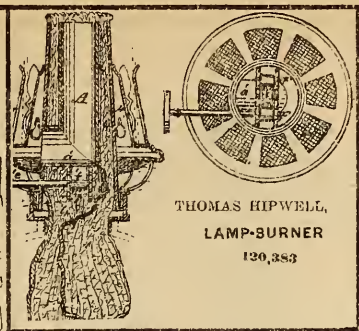


WILLIAM L. GEBBY.

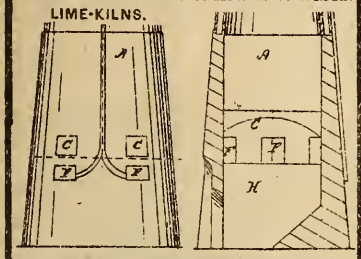
120,377 GEORGE P. GORDON.
PRINTING-PRESS



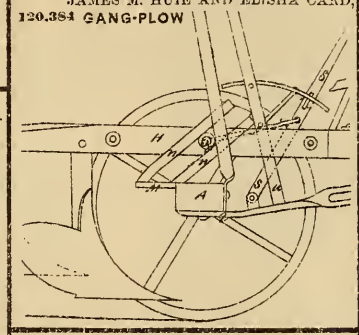
THOMAS HIPWELL,
LAMP-BURNER
120,383



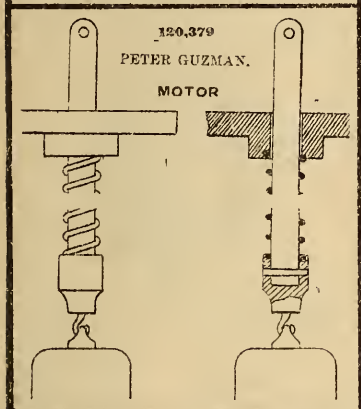
120,378 MICHAEL GROH AND J. V. WEITZ.
LIME-KILNS.



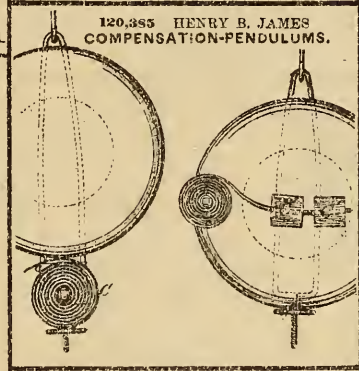
JAMES M. HUIE AND ELISHA CARD,
120,384 GANG-PLOW



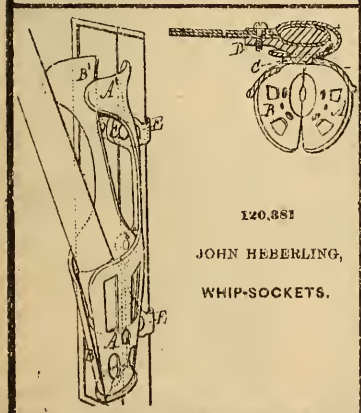
120,379
PETER GUZMAN.
MOTOR



120,385 HENRY B. JAMES
COMPENSATION-PENDULUMS.

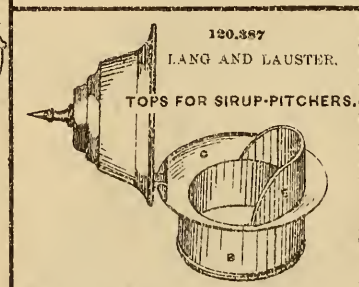


ERASTUS M. KINNE,
SNAP-HOOK
120,386



120,381
JOHN HEBERLING,
WHIP-SOCKETS.

120,387
LANG AND LAUSTER.
TOPS FOR SIRUP-PITCHERS.



LEVI HEYWOOD,
TILTING-CHAIR
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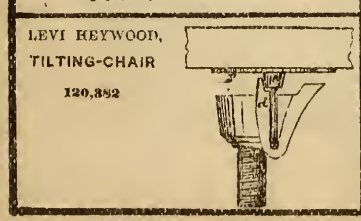
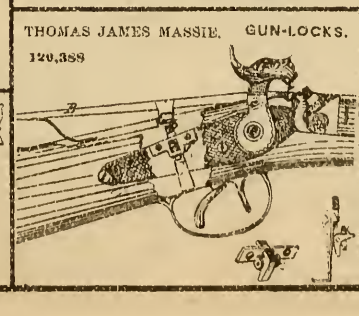
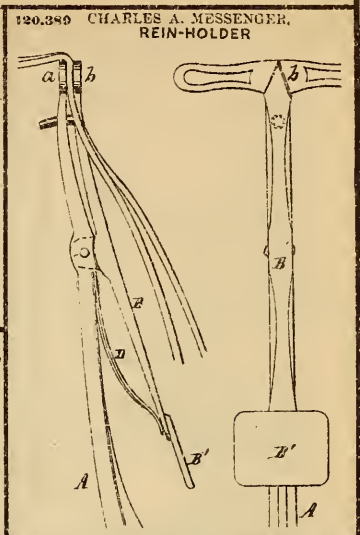


THOMAS JAMES MASSIE. GUN-LOCKS.
120,388



120,389 CHARLES A. MESSENGER.
REIN-HOLDER



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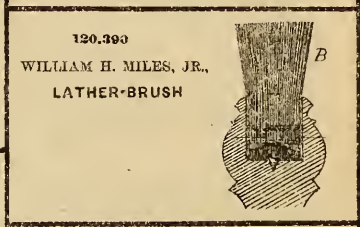
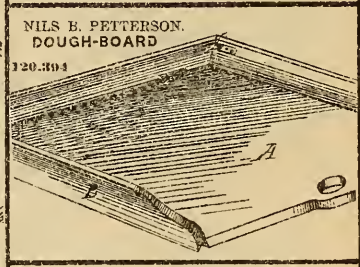
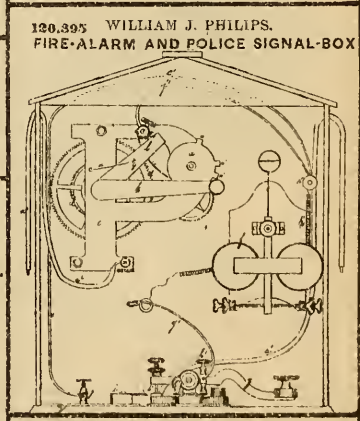
WILLIAM H. MILES, JR.,
LATHER-BRUSH



NILS B. PETTERSON.
DOUGH-BOARD
120,394



120,395 WILLIAM J. PHILIPS.
FIRE-ALARM AND POLICE SIGNAL-BOX



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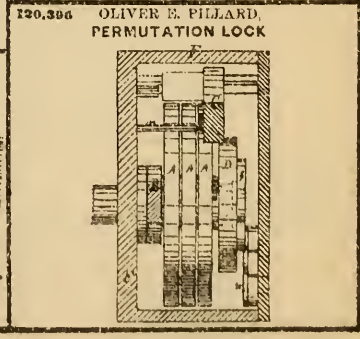
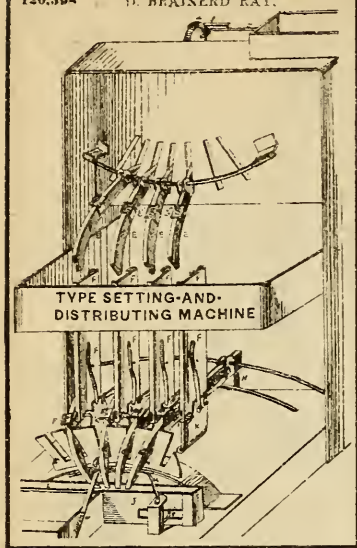
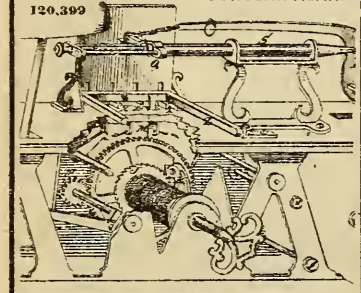
PERMUTATION LOCK



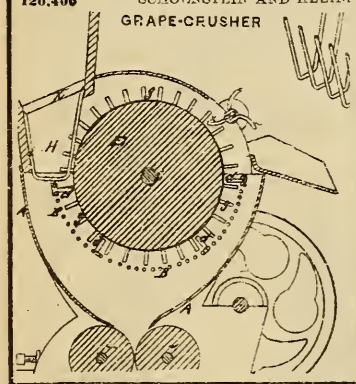
120,398 O. BRAINERD RAY.



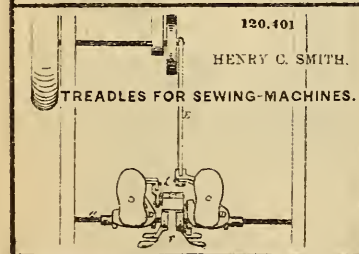
ABBOTT Q. ROSS. BURGLAR-ALARM
120,399

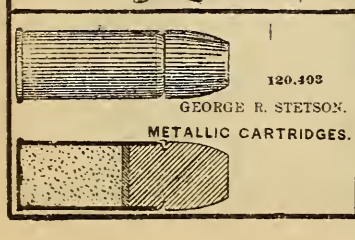


120,400 SCHOENSTEIN AND KLEIN.
GRAPE-CRUSHER



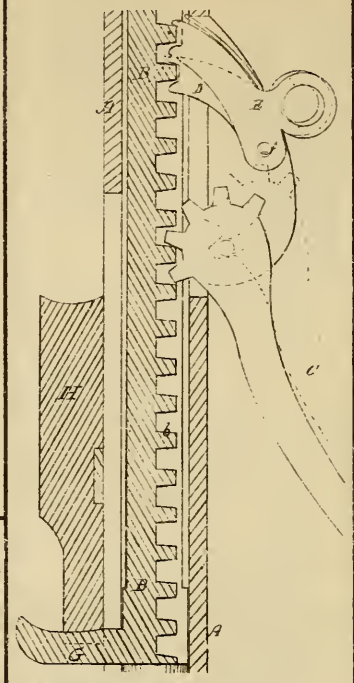
120,401
HENRY C. SMITH.
TREADLES FOR SEWING-MACHINES.



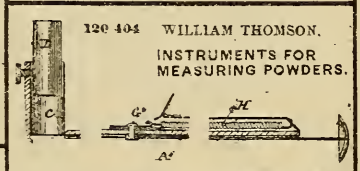


120,403
GEORGE R. STETSON.
METALLIC CARTRIDGES.

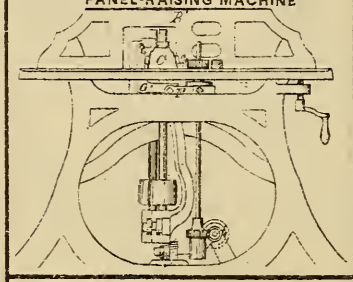
120,402 LOUIS P. SMITH.
LIFTING-JACK



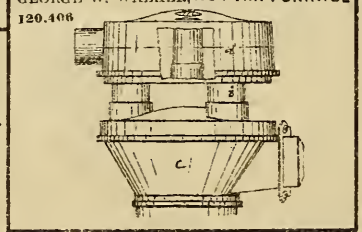
120,404 WILLIAM THOMSON.
INSTRUMENTS FOR MEASURING POWDERS.



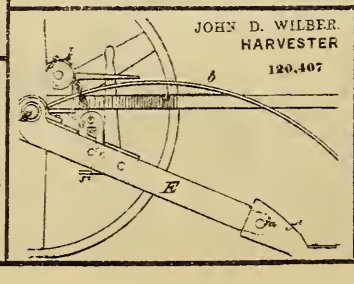
120,405 DWIGHT F. WALKER,
PANEL-RAISING MACHINE



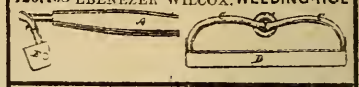
GEORGE W. WALKER, HOT-AIR FURNACE
120,406



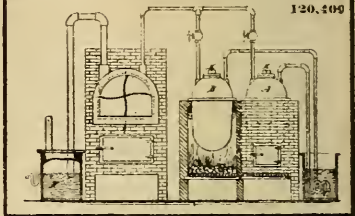
JOHN D. WILBER.
HARVESTER
120,407



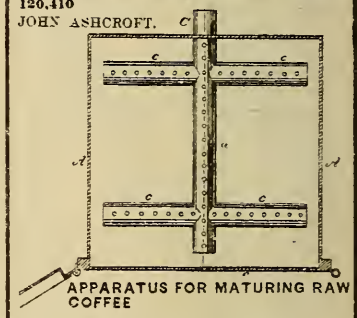
120,408 EBENEZER WILCOX. WEEDING-HOE



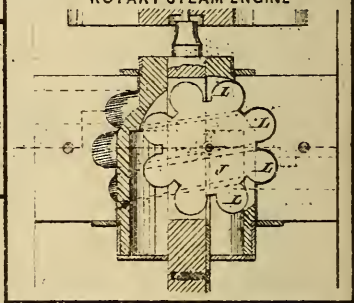
WILLIAM G. WREN AND GEORGE W. WREN
MANUFACTURE OF ILLUMINATING-GAS FROM PETROLEUM.
120,409



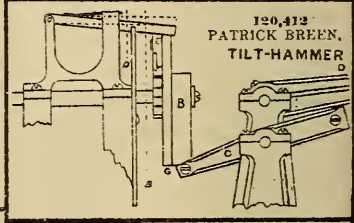
120,410
JOHN ASHCROFT.



120,411 GEORGE V. ATWOOD.
ROTARY STEAM-ENGINE



120,412
PATRICK BREEN.
TILT-HAMMER



OTHNIEL BROWN. HARNESS-BUCKLE
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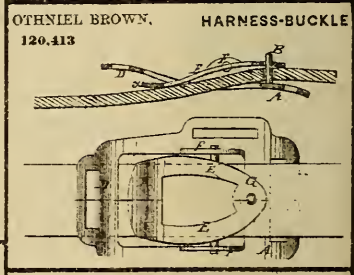
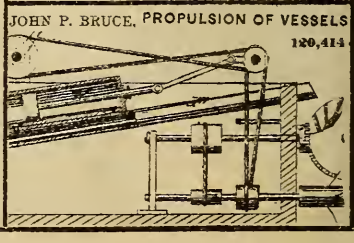
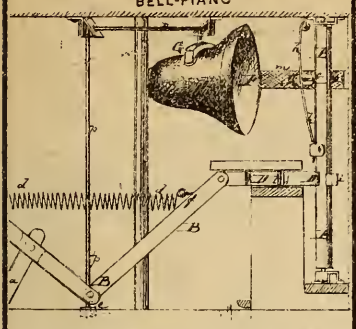


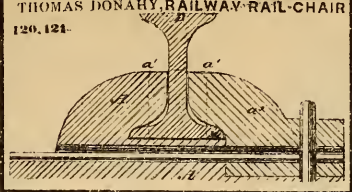
JOHN P. BRUCE. PROPULSION OF VESSELS
120,414



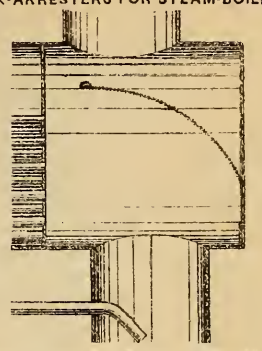
120.415 CARL GUSTAV BUTTKEREIT, BELL-PIANO



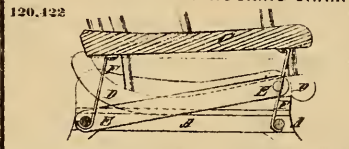
THOMAS DONAHY, RAILWAY-RAIL-CHAIR
120.421



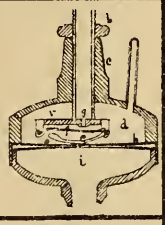
120.428 JOHN GATES, SPARK-ARRESTERS FOR STEAM-BOILERS



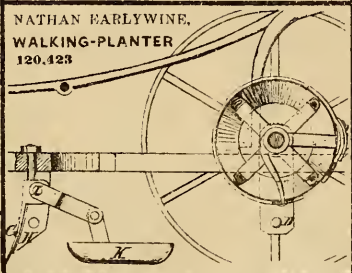
JOHN W. H. DOUBLER, ROCKING-CHAIR
120.422



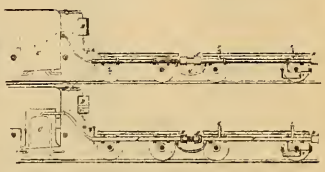
120.416
JOHN B. COOLIDGE,
GAS-REGULATOR



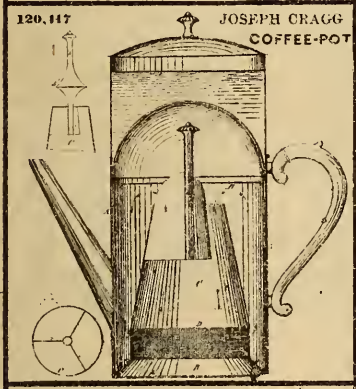
NATHAN EARLYWINE,
WALKING-PLANTER
120.423



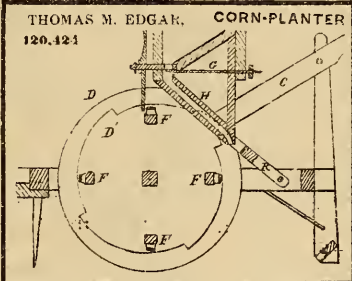
120.429 SAMUEL N. GOODALE,
OPERATING THE BRAKES OF RAILROAD CARS.



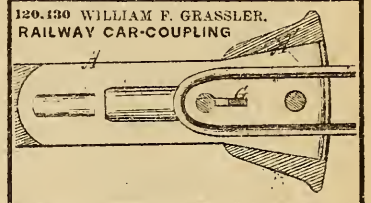
120.417 JOSEPH CRAGG
COFFEE-POT



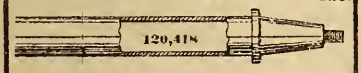
THOMAS M. EDGAR, CORN-PLANTER
120.424

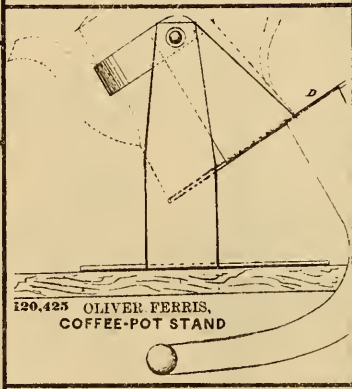


120.430 WILLIAM F. GRASSLER,
RAILWAY CAR-COUPLING



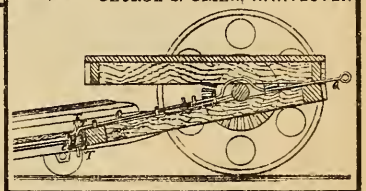
JOSEPH W CREMIN AXLES FOR VEHICLES.
120,418





120,425 OLIVER FERRIS,
COFFEE-POT STAND

120.431 GEORGE S. GRIER, HARVESTER



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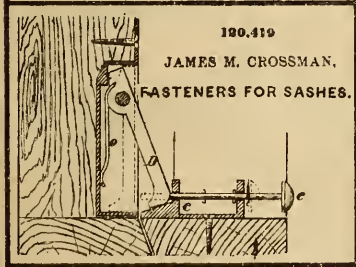
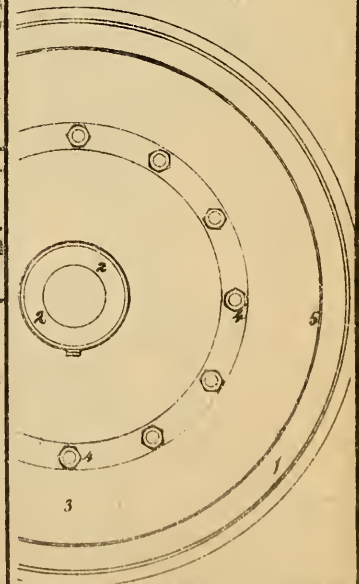
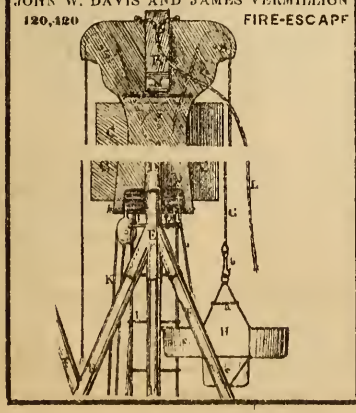
JAMES M. CROSSMAN,
FASTENERS FOR SASHES.



120.432 JAMES BAIRD HANDYSIDE,
RAILWAY-CAR WHEEL

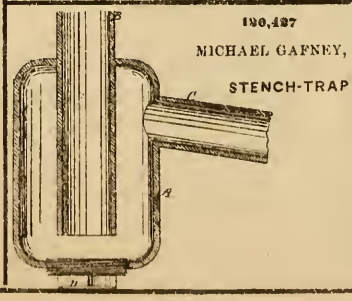


JOHN W. DAVIS AND JAMES VERMILLION
120,420 FIRE-ESCAPE

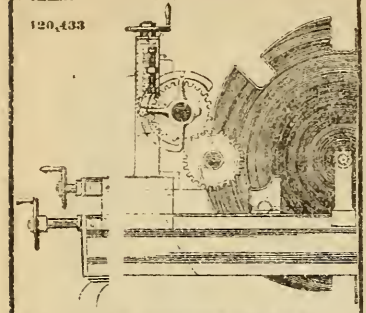


NEWTON C. FRECK AND SOLOMON STROCK,
120.426 WOOD-PLANING MACHINE

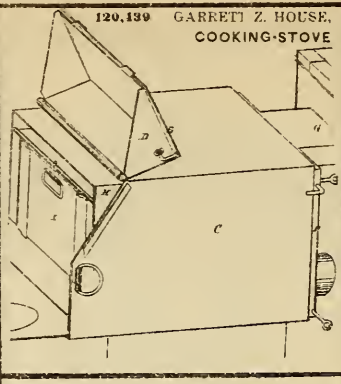
120,427
MICHAEL GAFNEY,
STENCH-TRAP



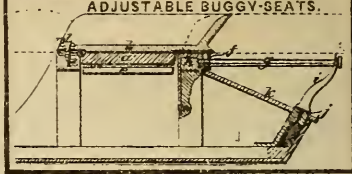
WILLIAM HAWKINS, MILLING-MACHINE
120,433



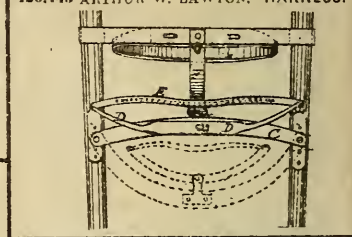
120,439 GARRETT Z. HOUSE, COOKING-STOVE



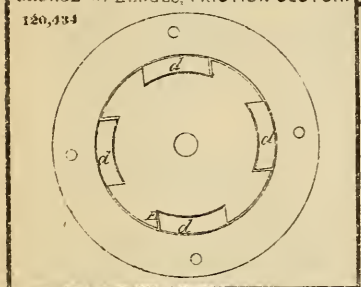
120,444 KRONINGER AND KRONINGER, ADJUSTABLE BUGGY-SEATS.



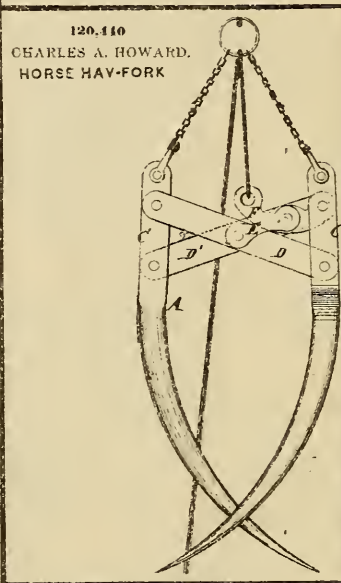
120,445 ARTHUR W. LAWTON, HARNESS.



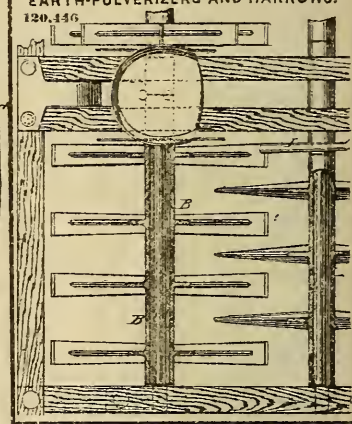
GEORGE W. HEDGES, FRICTION-CLUTCH.
120,434



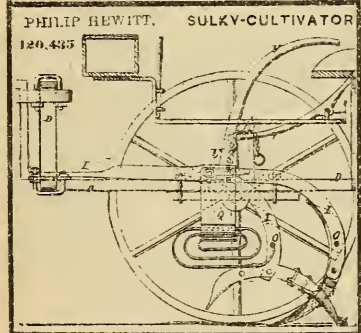
120,440
CHARLES A. HOWARD.
HORSE HAY-FORK



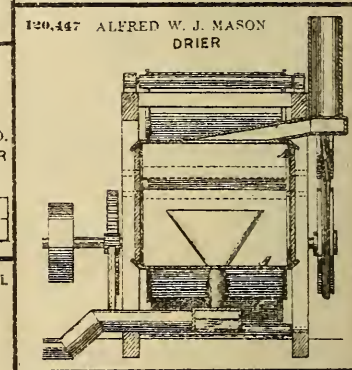
JAMES LEFEBER AND GEORGE W. SHULTS
EARTH-PULVERIZERS AND HARROWS.
120,446



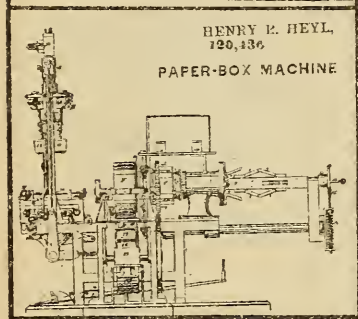
PHILIP BEWITT, SULKY-CULTIVATOR
120,435

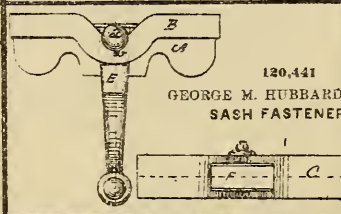


120,447 ALFRED W. J. MASON
DRIER



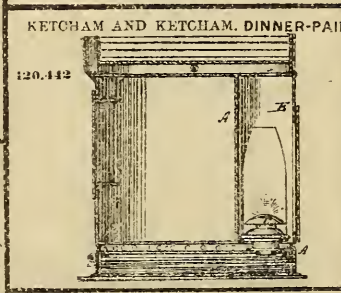
HENRY E. HEYL,
120,436
PAPER-BOX MACHINE



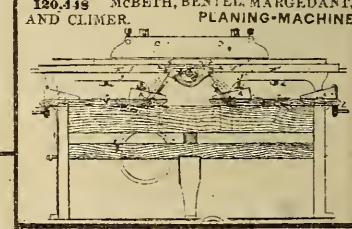


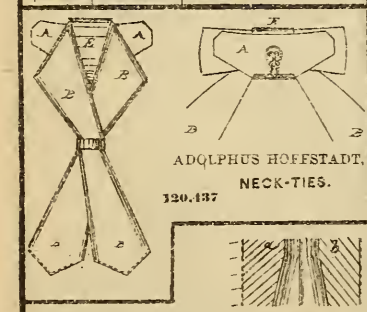
120,441
GEORGE M. HUBBARD.
SASH FASTENER

KETCHAM AND KETCHAM, DINNER-PAIL
120,442

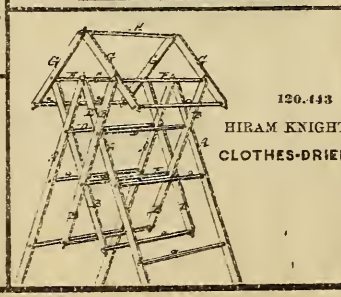


120,448 McBETH, BENTEL, MARGEDANT, AND CLIMER. PLANING-MACHINE



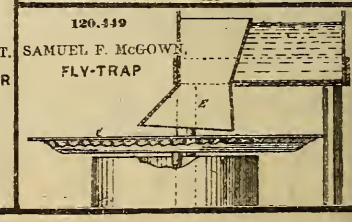


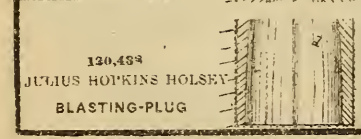
ADOLPHUS HOFFSTADT,
NECK-TIES.
120,437



120,443
HIRAM KNIGHT.
CLOTHES-DRIER

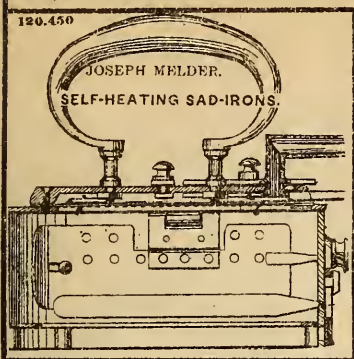
120,449
SAMUEL F. McGOWN.
FLY-TRAP



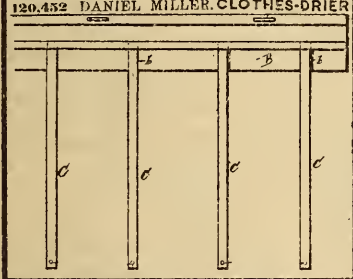


120,438
JULIUS HOPKINS HOLSEY
BLASTING-PLUG

120,450
JOSEPH MELDER.
SELF-HEATING SAD-IRONS.

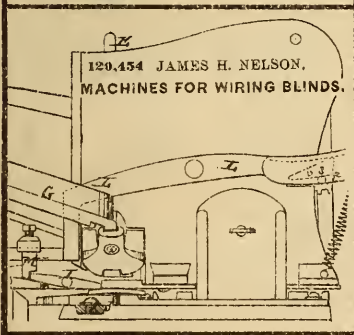


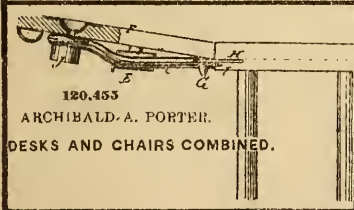
120,452 DANIEL MILLER. CLOTHES-DRIER



120,453
JOEL B. MILLER,
CIGAR-LIGHTER

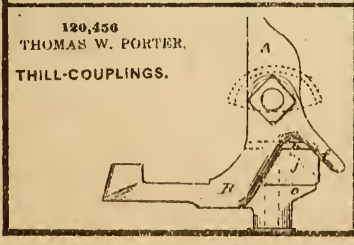
120,454 JAMES H. NELSON,
MACHINES FOR WIRING BLINDS.



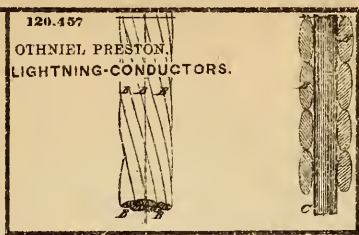


120,455
ARCHIBALD A. PORTER.
DESKS AND CHAIRS COMBINED.

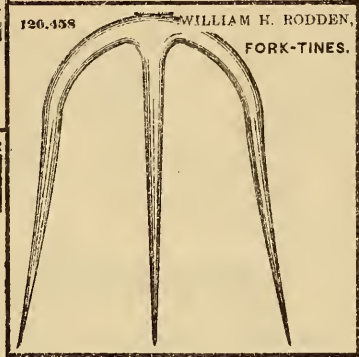
120,456
THOMAS W. PORTER.
THILL-COUPLINGS.



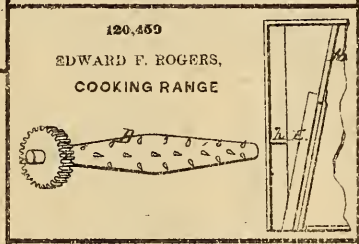
120,457
OTHNIEL PRESTON,
LIGHTNING-CONDUCTORS.



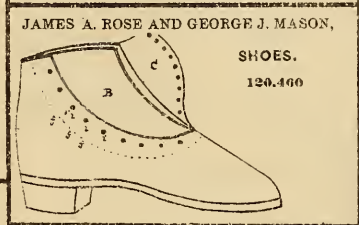
120,458 WILLIAM H. RODDEN,
FORK-TINES.



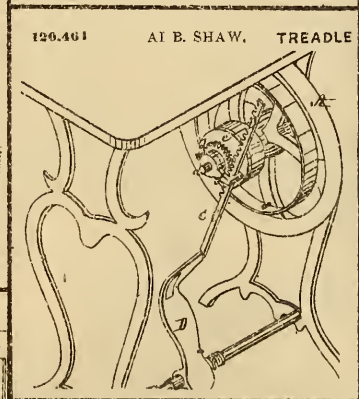
120,459
EDWARD F. ROGERS,
COOKING RANGE



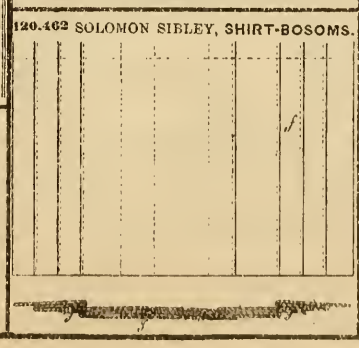
JAMES A. ROSE AND GEORGE J. MASON,
SHOES.
120,460



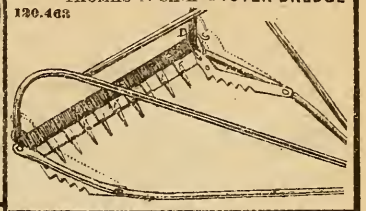
120,461 AI B. SHAW. TREADLE



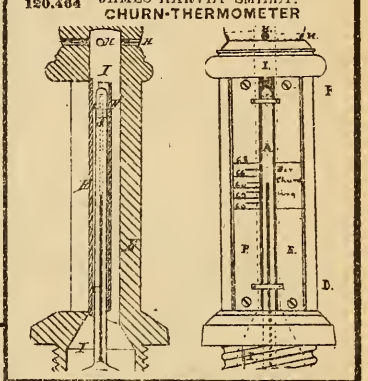
120,462 SOLOMON SIBLEY, SHIRT-BOSOMS.



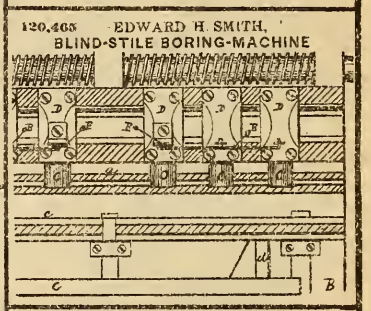
THOMAS P. SINK OYSTER-DREDGE
120,463

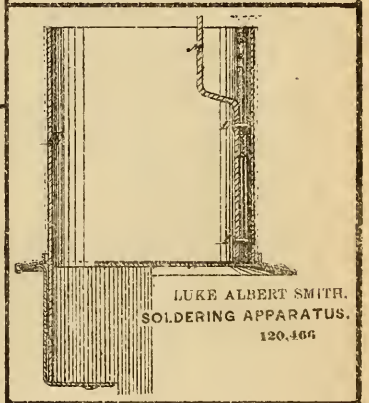


120,464 JAMES HARVEY SMILEY.
CHURN-THERMOMETER



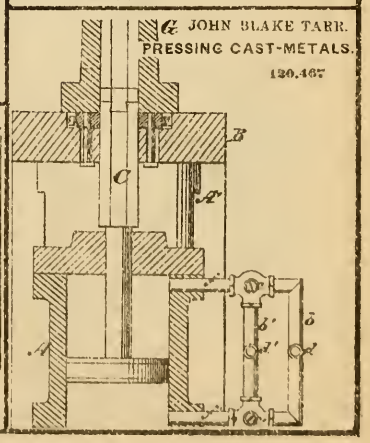
120,465 EDWARD H. SMITH,
BLIND-STILE BORING-MACHINE



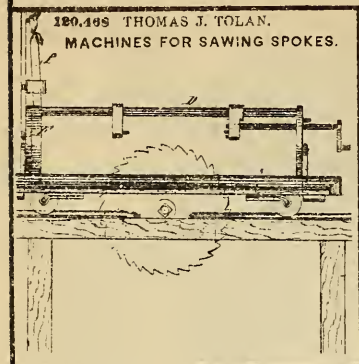


LUKE ALBERT SMITH.
SOLDERING APPARATUS.
120,466

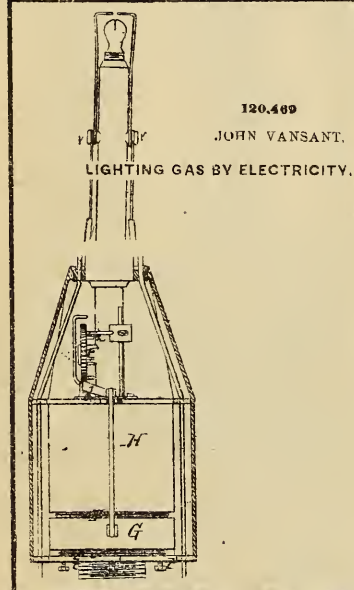
JOHN BLAKE TARR.
PRESSING CAST-METALS.
120,467



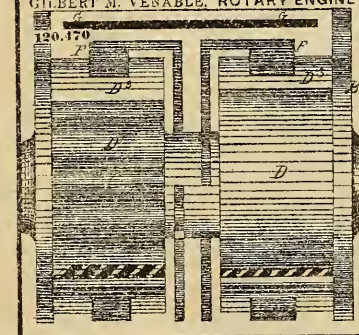
120,468 THOMAS J. TOLAN.
MACHINES FOR SAWING SPOKES.



120,469
JOHN VANSANT.
LIGHTING GAS BY ELECTRICITY.

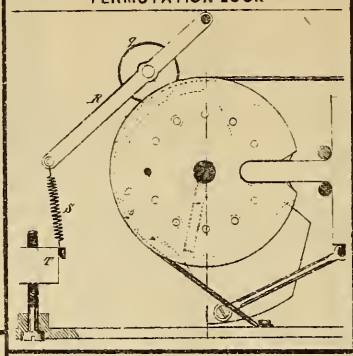


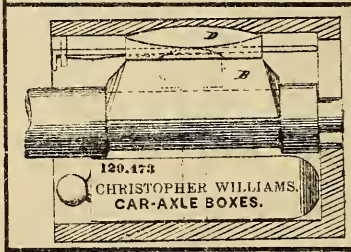
GILBERT M. VENABLE, ROTARY ENGINE
120,470



120,471
MAHLON WARNE.
ADVERTISING MEDIUMS FOR STREET-CARS.

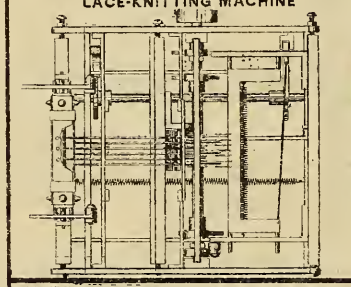
120,472 SAMUEL C. WEDDINGTON.
PERMUTATION LOCK



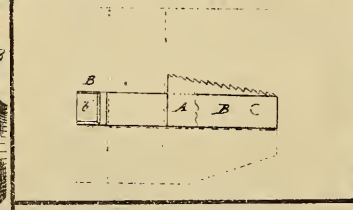


120,473
CHRISTOPHER WILLIAMS.
CAR-AXLE BOXES.

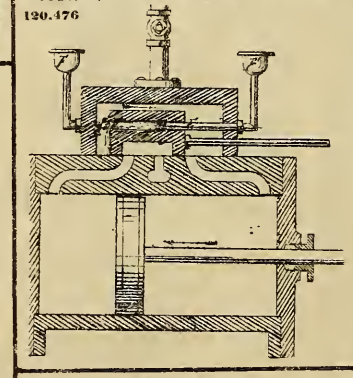
120,474 HENRY WILLIAMSON.
LACE-KNITTING MACHINE



120,475 ANDREW H. WOODRUFF.
PIPE-WRENCH ATTACHMENTS
FOR MONKEY-WRENCHES.

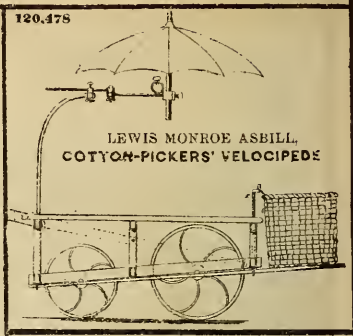


ALMON N. ALLEN AND RODNEY H. DEWEY
LUBRICATORS FOR STEAM-VALVES
120,476

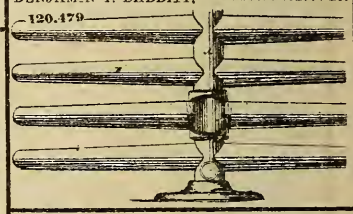


120,477 JOHN ARMSTRONG.
HOLD-BACKS FOR SHAFTS OF VEHICLES.

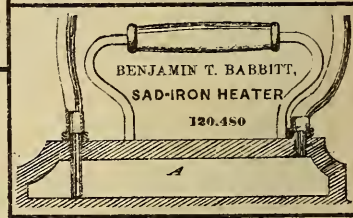
120,478
LEWIS MONROE ASBILL.
COTTON-PICKERS' VELOCIPEDE



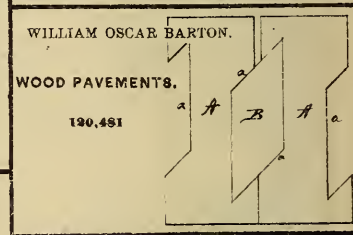
BENJAMIN T. BABBITT. STEAM-HEATER
120,479



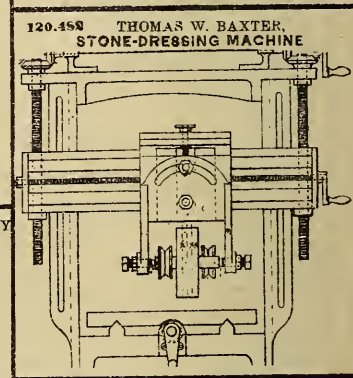
BENJAMIN T. BABBITT.
SAD-IRON HEATER.
120,480



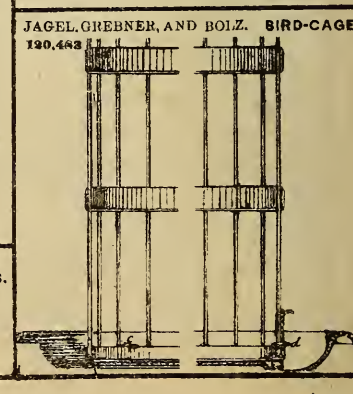
WILLIAM OSCAR BARTON.
WOOD PAVEMENTS.
120,481



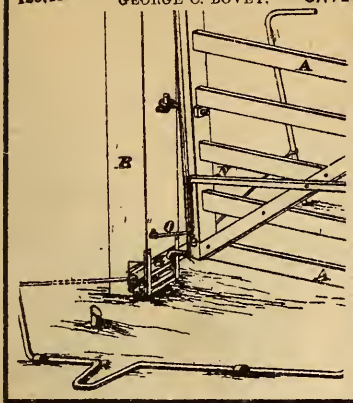
120,482 THOMAS W. BAXTER.
STONE-DRESSING MACHINE



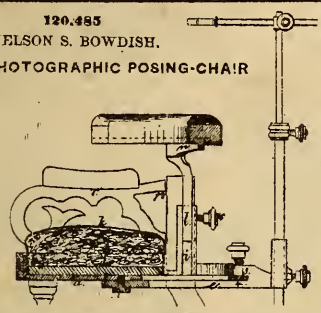
JAGEL, GREBNER, AND BOLZ. BIRD-CAGE
120,483



120,484 GEORGE C. BOVEY. GATE

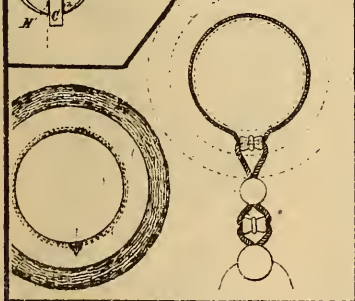


120,485 NELSON S. BOWDISH. PHOTOGRAPHIC POSING-CHAIR

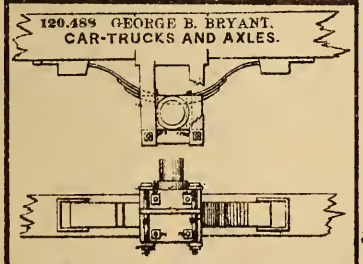


120,486 BRINTZINGHOFFER AND ECKERT. BRUSH-HANDLE

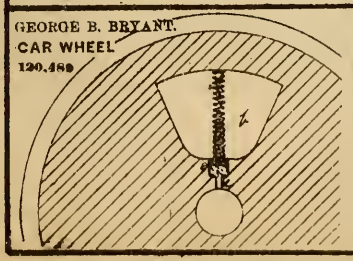
120,487 SAMUEL BRODY. MUFF-TASSELS.



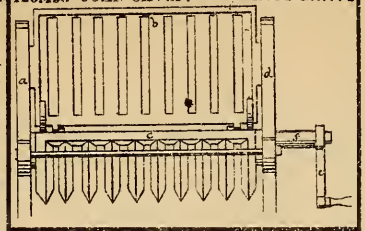
120,488 GEORGE B. BRYANT. CAR-TRUCKS AND AXLES.



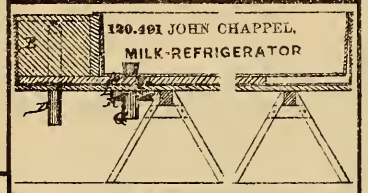
GEORGE B. BRYANT. CAR WHEEL 120,489



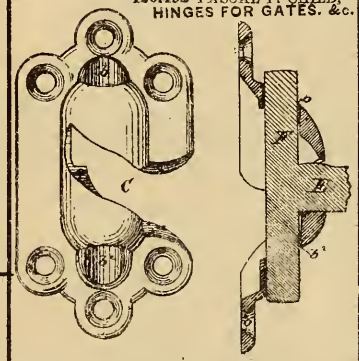
120,490 JOHN CAVEN. FIRE-PLACE GRATE



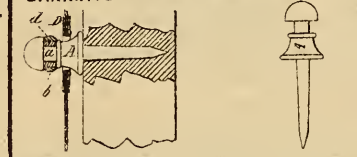
120,491 JOHN CHAPPEL. MILK-REFRIGERATOR



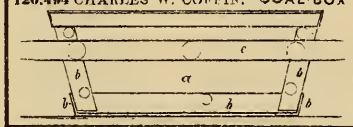
120,492 PASCAL P. CHILD. HINGES FOR GATES. &c.



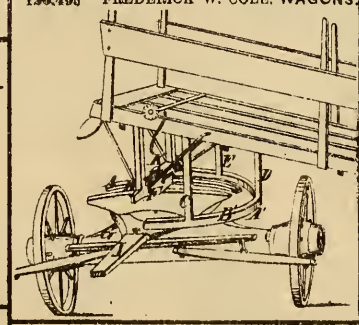
120,493 ALVIN B. CLARK. CARRIAGE-CURTAIN FASTENINGS.



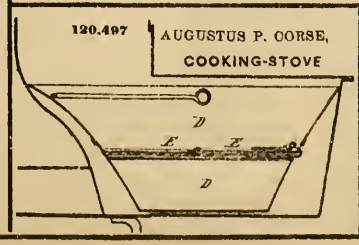
120,494 CHARLES W. COFFIN. COAL-BOX



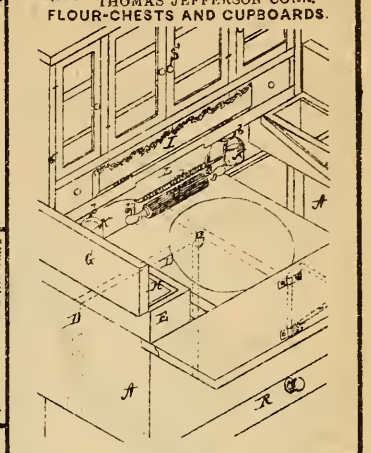
120,495 FREDERICK W. COLE. WAGONS.



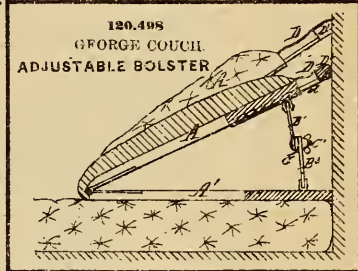
120,497 AUGUSTUS P. CORSE. COOKING-STOVE



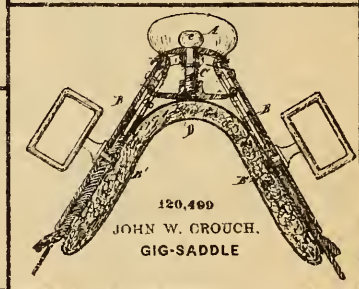
120,496 THOMAS JEFFERSON CORR. FLOUR-CHESTS AND CUPBOARDS.



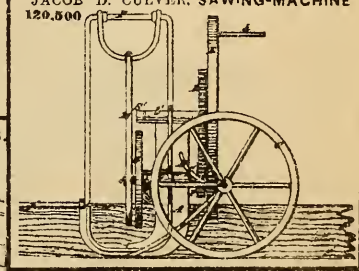
120,498 GEORGE COUCH. ADJUSTABLE BOLSTER



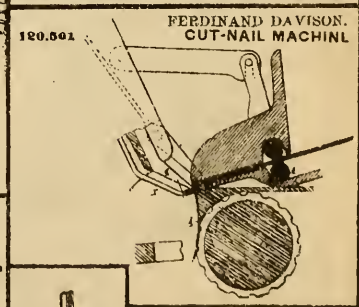
120,499 JOHN W. CROUCH. GIG-SADDLE



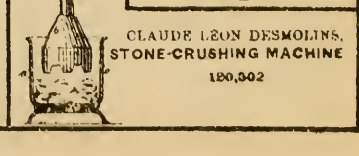
JACOB D. CULVER. SAWING-MACHINE 120,500



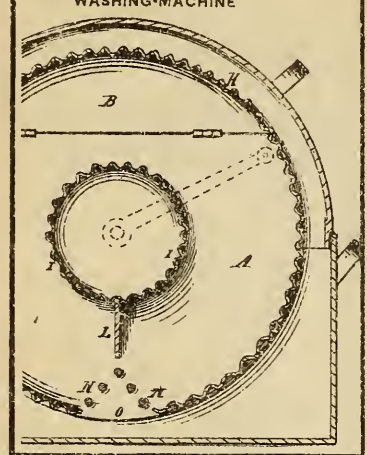
120,501 FERDINAND DAVISON. CUT-NAIL MACHINE



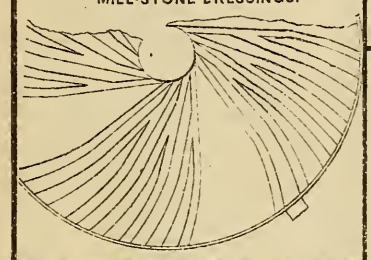
CLAUDE LEON DESMOLINS. STONE-CRUSHING MACHINE 120,502



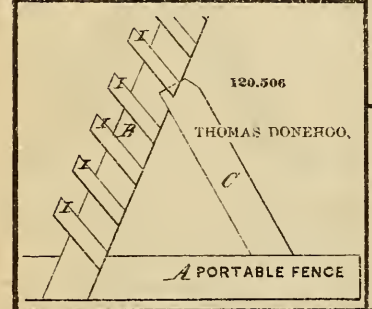
120,504 WILLIAM JAMES DODGE, WASHING-MACHINE



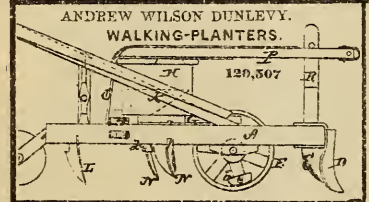
120,505 HENRY DOLMETCH, MILL-STONE DRESSINGS.



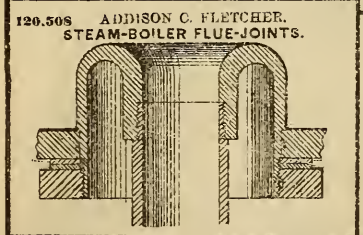
120,506 THOMAS DONEHOO, A PORTABLE FENCE



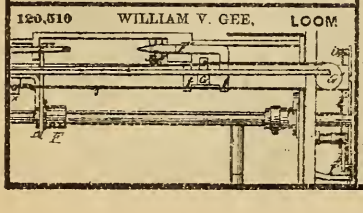
ANDREW WILSON DUNLEVY, WALKING-PLANTERS. 120,507



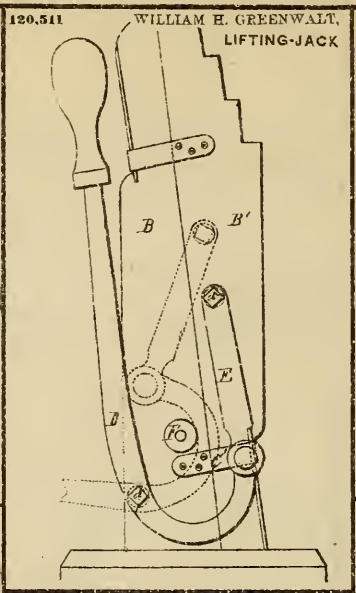
120,508 ADDISON C. FLETCHER, STEAM-BOILER FLUE-JOINTS.



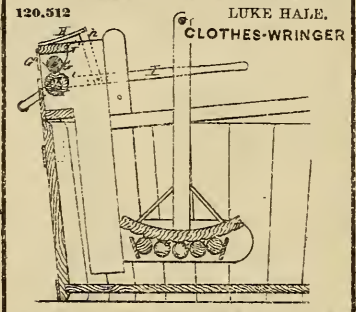
120,510 WILLIAM V. GEE, LOOM



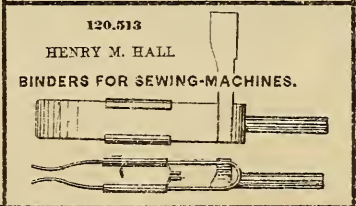
120,511 WILLIAM H. GREENWALT, LIFTING-JACK



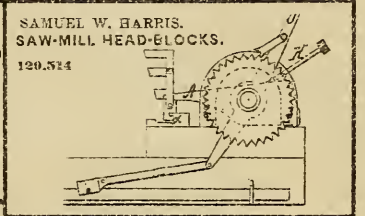
120,512 LUKE HALE, CLOTHES-WRINGER



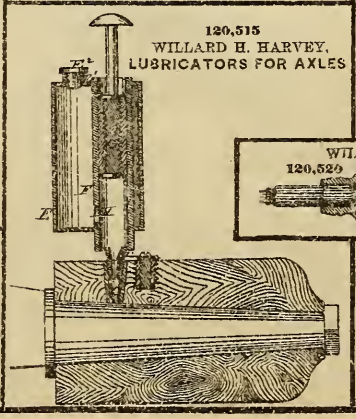
120,513 HENRY M. HALL, BINDERS FOR SEWING-MACHINES.



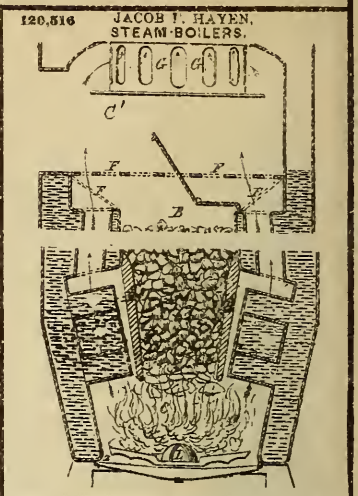
SAMUEL W. HARRIS, SAW-MILL HEAD-BLOCKS. 120,514



120,515 WILLARD H. HARVEY, LUBRICATORS FOR AXLES

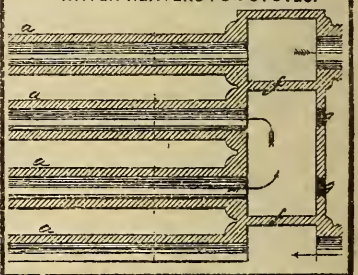


120,516 JACOB F. HAYEN, STEAM-BOILERS.

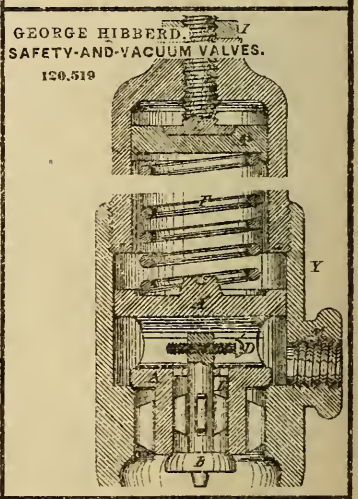


120,517 WILLIAM HENRY, FOLDING-STEPS FOR VEHICLES.

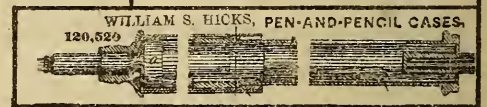
120,518 GEORGE HIBBERD, WATER-HEATERS FOR STOVES.



GEORGE HIBBERD, SAFETY-AND-VACUUM VALVES. 120,519



WILLIAM S. HICKS, PEN-AND-PENCIL CASES. 120,520



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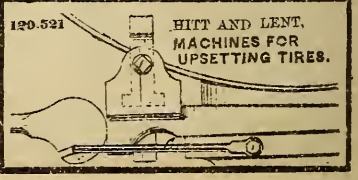
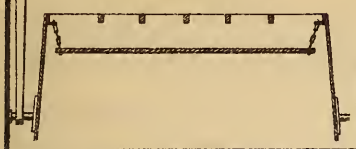
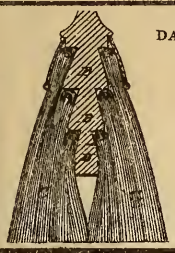


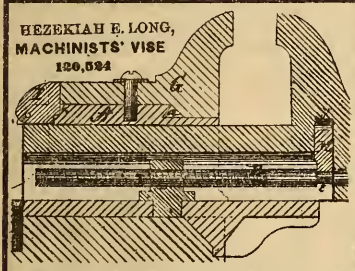
120,522 HULBERT AND AUBIN,
HOISTING-BUCKET



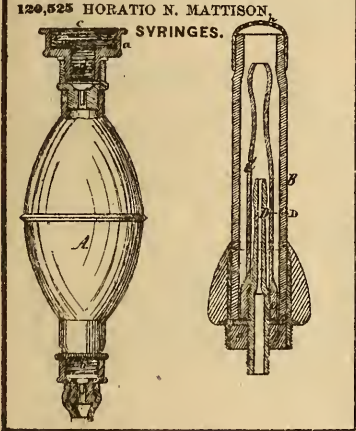
120,523
DANIEL W. LAPHAM,
BRUSHES.



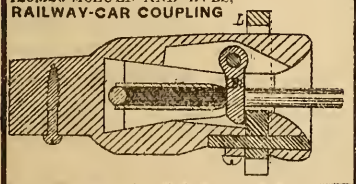
HEZEKIAH E. LONG,
MACHINISTS' VISE
120,524



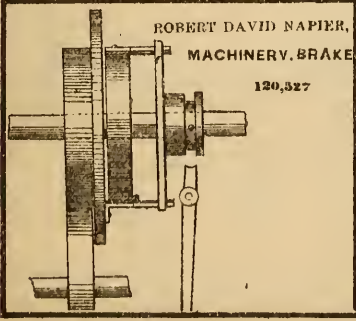
120,525 HORATIO N. MATTISON,
SYRINGES.



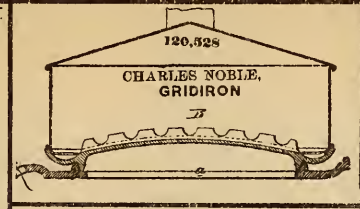
120,526 McEUEN AND EVES,
RAILWAY-CAR COUPLING



ROBERT DAVID NAPIER,
MACHINERY BRAKE
120,527



120,528
CHARLES NOBLE,
GRIDIRON



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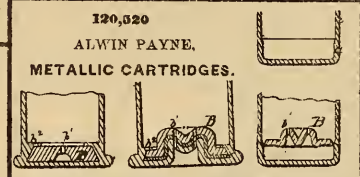
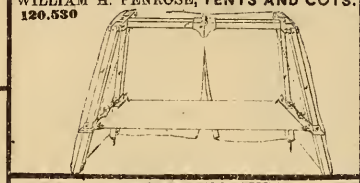
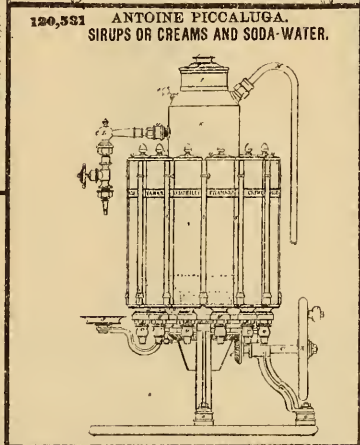
ALWIN PAYNE,
METALLIC CARTRIDGES.



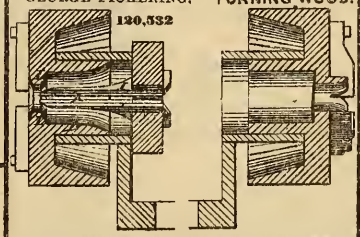
WILLIAM H. PENROSE, TENTS AND COTS.
120,530



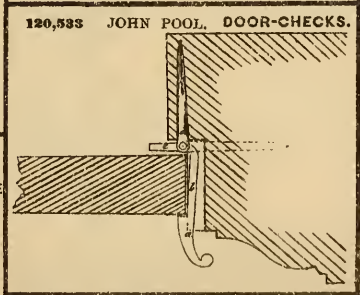
120,531 ANTOINE PICCALUGA.
SIRUPS OR CREAMS AND SODA-WATER.



GEORGE PICKERING. TURNING WOOD.
120,532

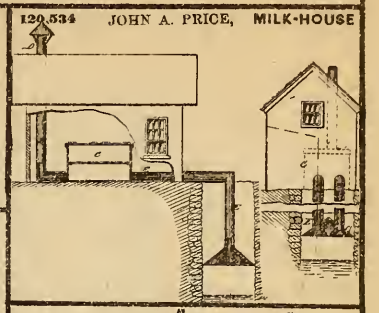


120,533 JOHN POOL. DOOR-CHECKS.

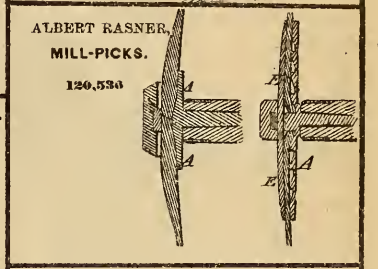


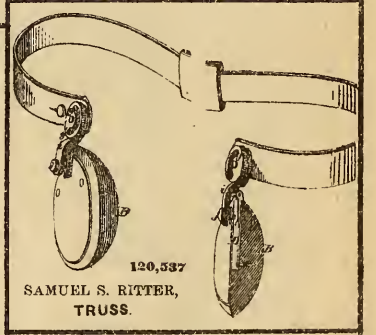
120,535 BETHUEL RANGER,
BRACELET-FASTENINGS.

120,534 JOHN A. PRICE, MILK-HOUSE

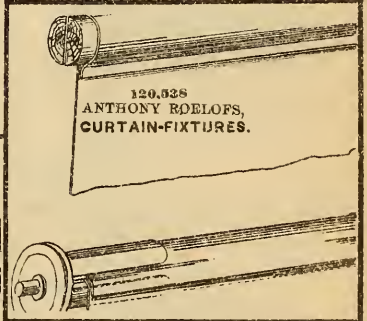


ALBERT RASNER,
MILL-PICKS.
120,536



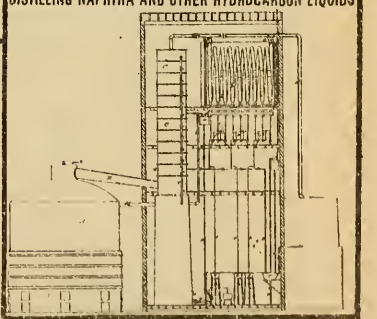


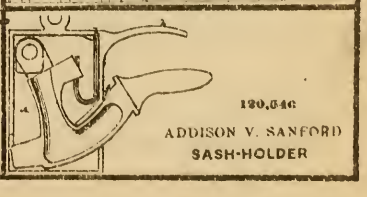
120,537
SAMUEL S. RITTER,
TRUSS.



120,538
ANTHONY ROELOFS,
CURTAIN-FIXTURES.

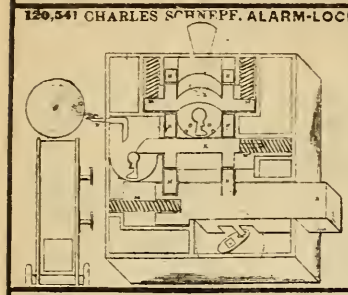
120,539 HENRY H. ROGERS,
DISTILLING NAPHTHA AND OTHER HYDROCARBON LIQUIDS



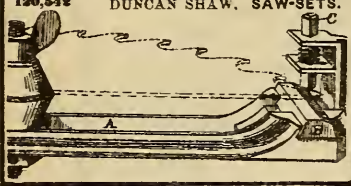


120,540
ADDISON V. SANFORD
SASH-HOLDER

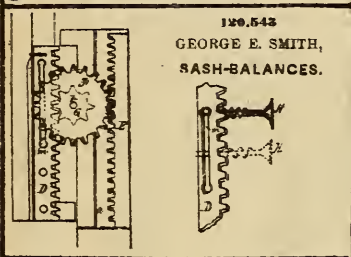
120,541 CHARLES SCHNEPF, ALARM-LOCK



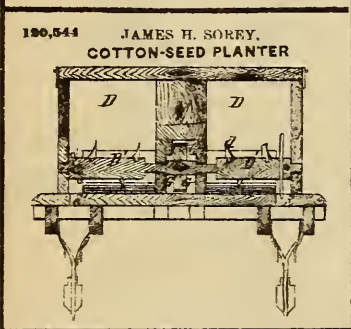
120,542 DUNCAN SHAW, SAW-SETS.



120,543 GEORGE E. SMITH, SASH-BALANCES.



120,544 JAMES H. SOREY, COTTON-SEED PLANTER



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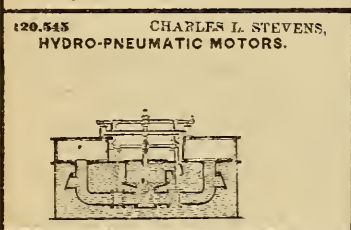

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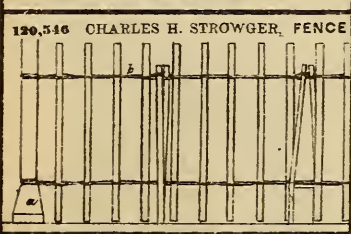

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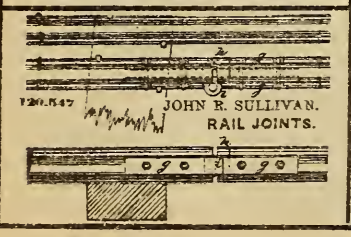

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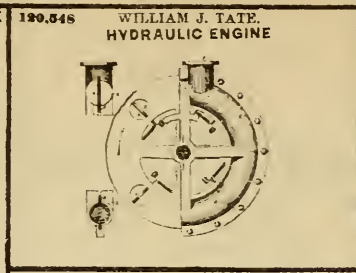
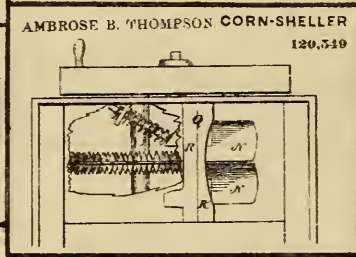
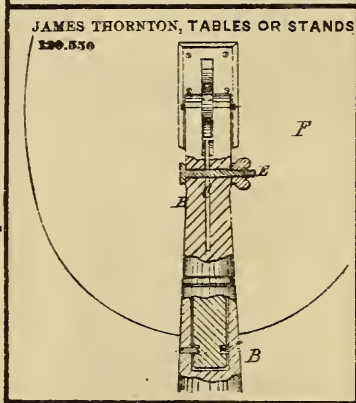


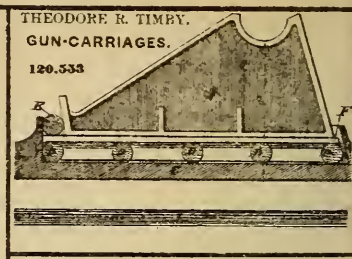
AMBROSE B. THOMPSON CORN-SHELLER 120,549



JAMES THORNTON, TABLES OR STANDS 120,550



THEODORE R. TIMBY, GUN-CARRIAGES. 120,553



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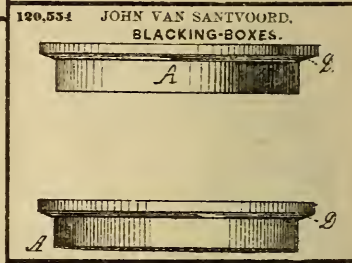

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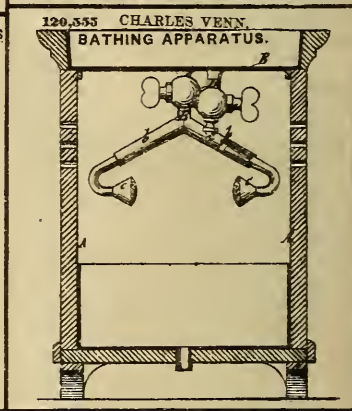

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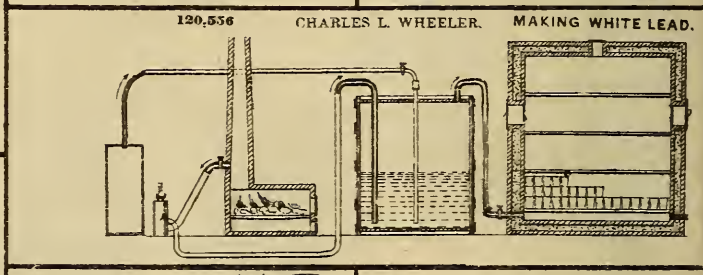

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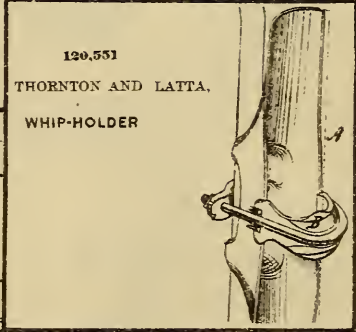
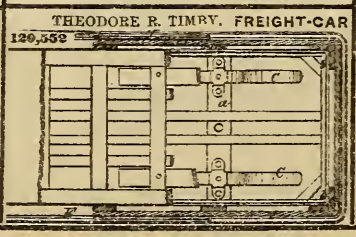
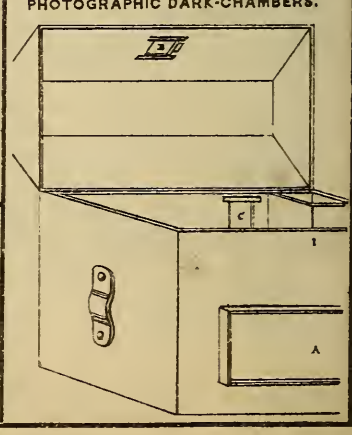


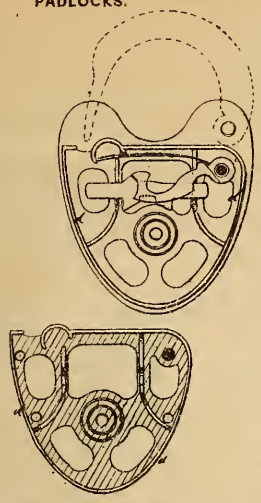
THEODORE R. TIMBY, FREIGHT-CAR 120,552



120,558 I. FLETCH WOODWARD, PHOTOGRAPHIC DARK-CHAMBERS.



120,557 WILLIAM WILCOX,
PADLOCKS.



WILLIAM S. WORLEY, ROAD-SCRAPER
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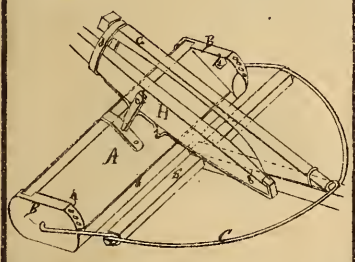

JOHN WORRELL AND JAMES H. RYNERSON
SULKY ATTACHMENTS FOR PLOWS.
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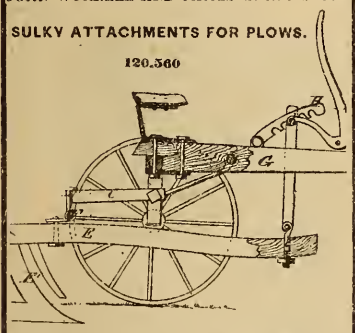
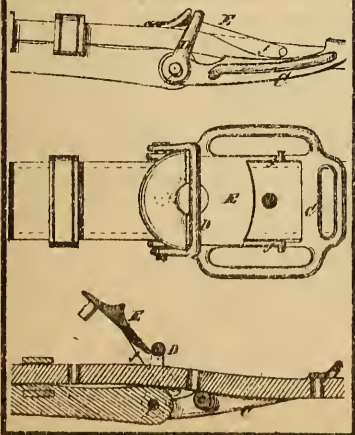


120,561 ALVAH WORSTER,
TRACE-BUCKLES.



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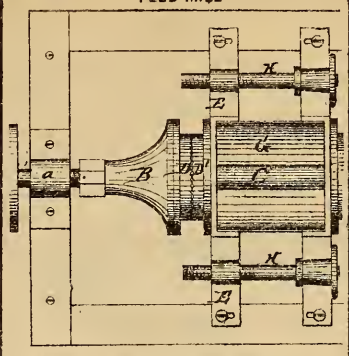
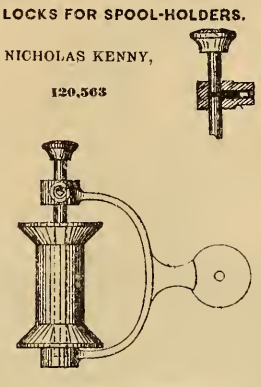
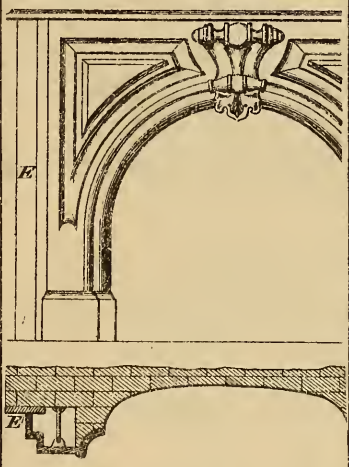


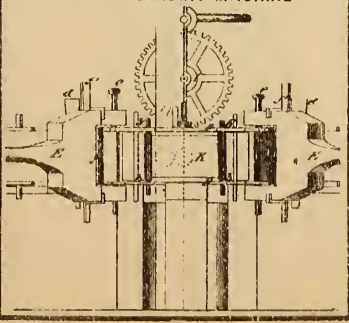
LOCKS FOR SPOOL-HOLDERS.
NICHOLAS KENNY,
120,563



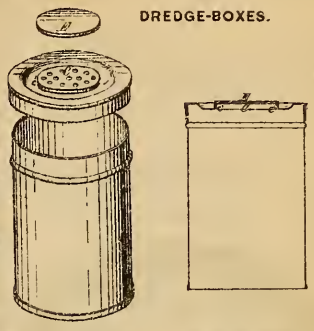
4,612 4,613
JNNES AND MAGILL,
MANTELS AND FRONTS FOR FIRE-PLACES



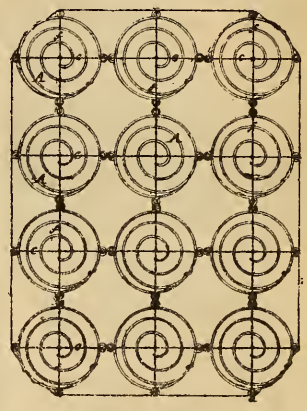
4,614 HIRAM McDONALD,
WOOD-BENDING MACHINE



4,615 AUGUSTUS F. TRIPP,
DREDGE-BOXES.



4,616 EDWIN L. BUSHNELL.
SPRING-MATTRESSES.



SETH C. CATLIN.
AUTOMATIC BARREL-FILLERS.
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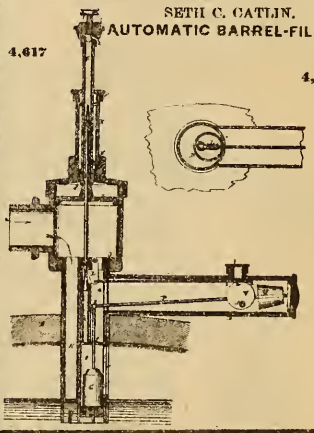

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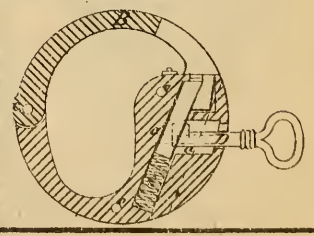

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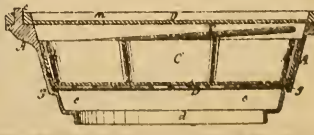
GRIDDLE, AND FRYING UTENSIL.



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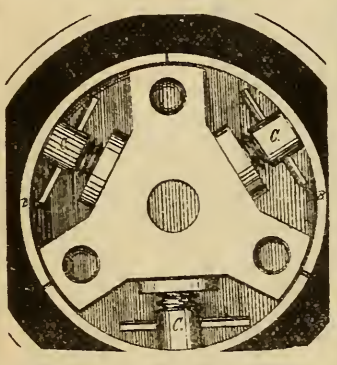
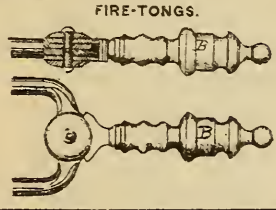
NOVEMBER 7, 1871.

120,565 GEORGE F. BLAKE.
PISTON-PACKINGS.



120,566 JOHN BRADBURY,
FIRE-TONGS.



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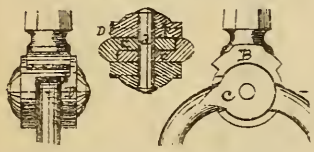

120,568 JOHN BRADBURY
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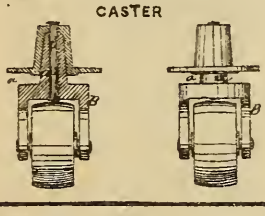
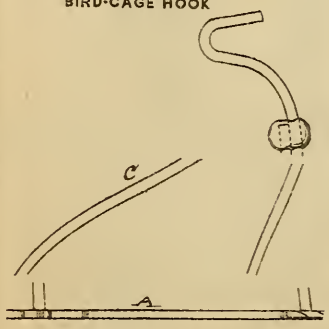


120,569 JOHN BRADBURY
BIRD-CAGE HOOK



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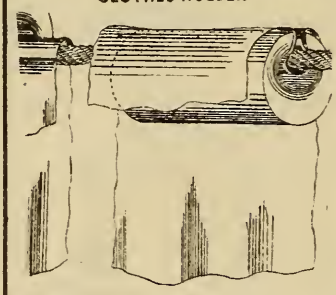
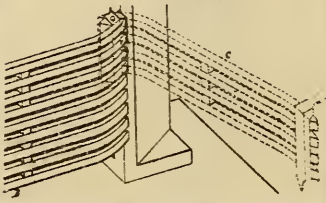
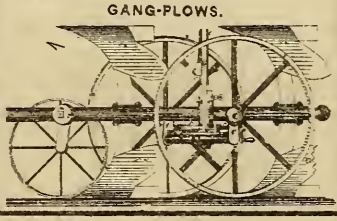
CLOTHES-HOLDER



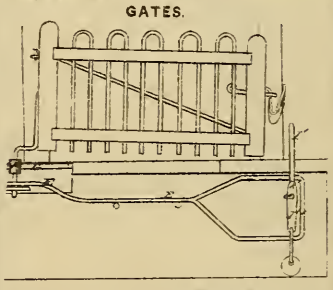
120,571 GEORGE BUCHANAN.
GRATE-FENDERS.



120,572 LUKE CHAPMAN.
GANG-PLOWS.



120,573 DAVID CREIGHTON,
GATES.



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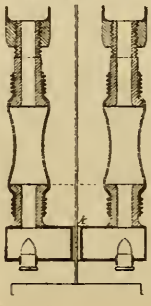
TORPEDOES FOR OIL-WELLS.



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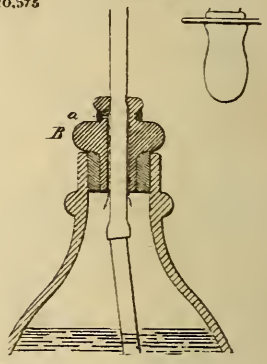
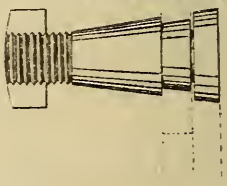
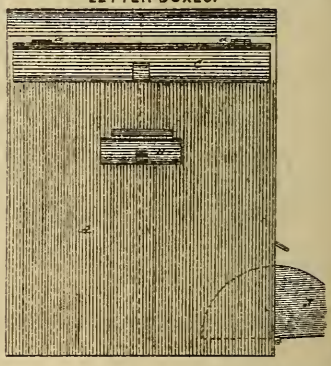
120,575 NURSING-BOTTLES.



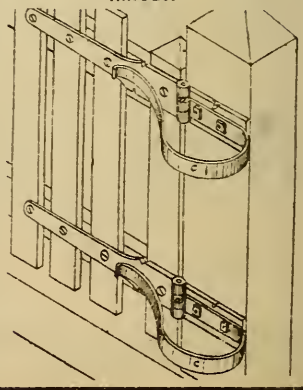
120,577 JOHN FARREL.
CONICAL BOLTS FOR SAFES.



120,578 JOHN A. FARRINGTON,
LETTER-BOXES.



120,580 ROBERT B. FOUZER,
HINGES.



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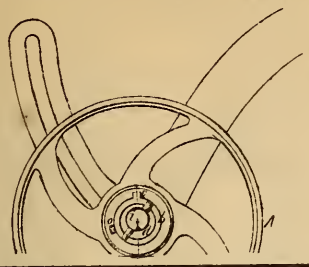
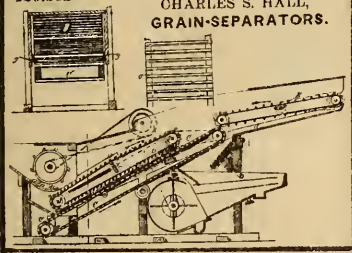
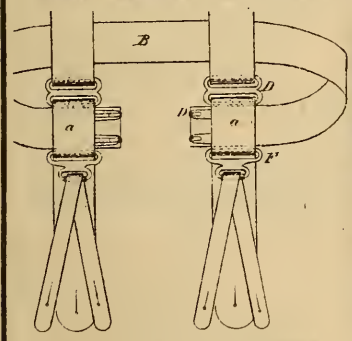


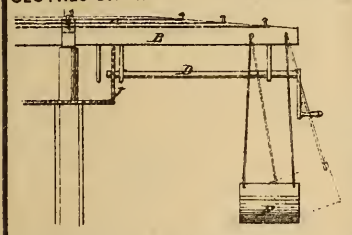
120,582 CHARLES S. HALL, GRAIN-SEPARATORS.



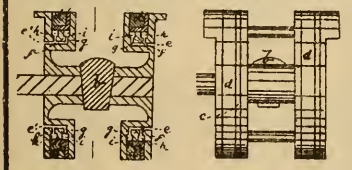
120,583 120,584 MARX HARRIS, BRACES OR SUSPENDERS.



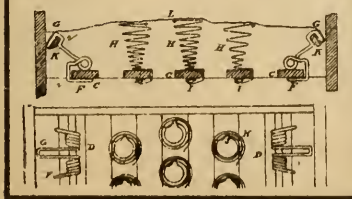
120,585 JOHN HIRONS, CLOTHES DRIERS AND PENDENT SEATS.



120,586 OSCAR S. HOWARD, PISTON-HEADS FOR STEAM-ENGINES.



120,587 CHARLES JOHNSON, BED-BOTTOMS.



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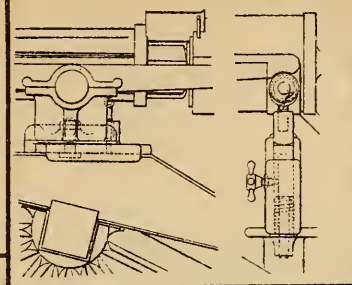

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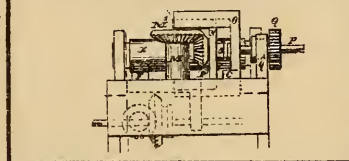

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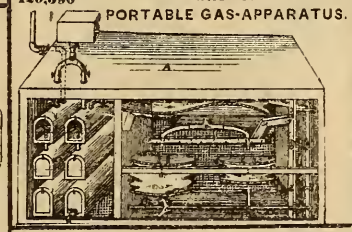
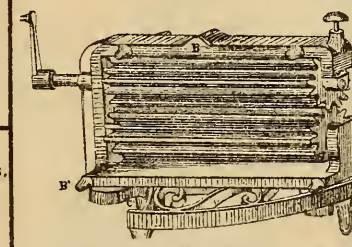


120,591 JAMES WEADON MADDEN, FLUTING-MACHINES.



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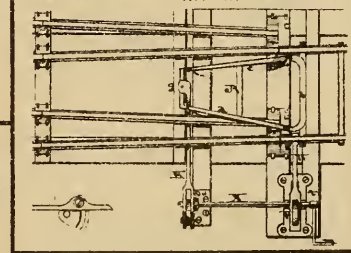
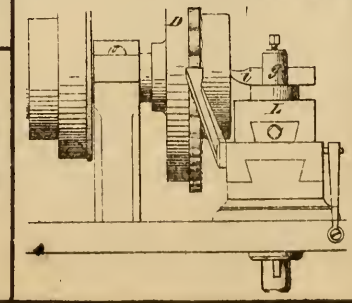


120,593 JOHN ERNEST MILLER, CHASING DESIGNS ON MOLDS.



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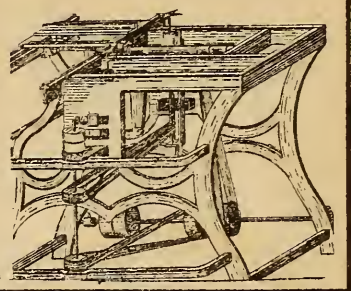

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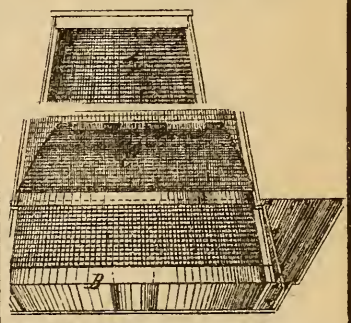
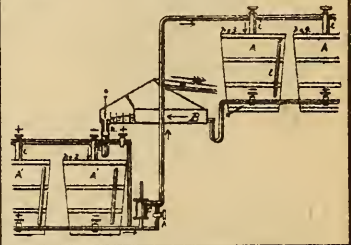
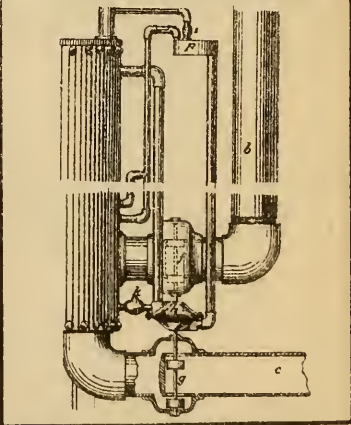


120,596 GEORGE GILMAN PERCIVAL, APPARATUS FOR EXTRACTING ESSENTIAL OILS.



120,597 WILLIAM E. PRALL, HYDRAULIC AIR-COMPRESSERS.



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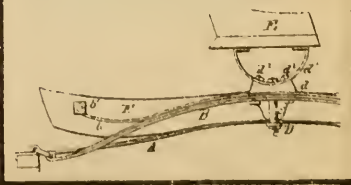
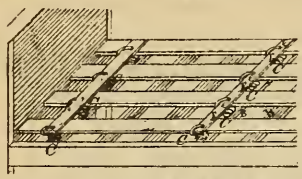
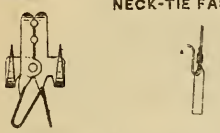


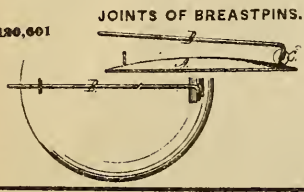
120,599 JASON H. SHERMAN.
BED-BOTTOMS.



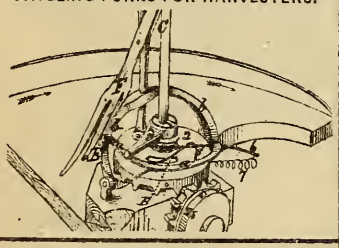
120,600 EDGAR SIDE,
NECK-TIE FASTENERS.



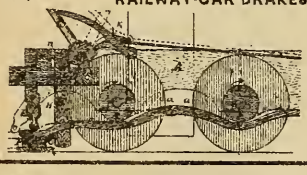
DANIEL O. STANLEY,
JOINTS OF BREASTPINS.
120,601



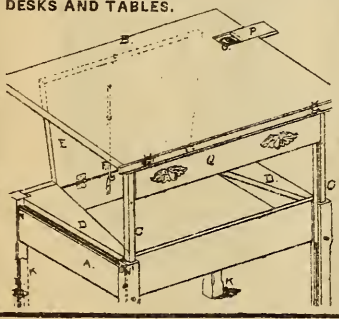
120,602 ORA WEBSTER.
GAVELING-FORKS FOR HARVESTERS.



ADAM WELLSHMIDT,
RAILWAY-CAR BRAKES.
120,603



120,604 ADOLPH WIBBERT.
DESKS AND TABLES.



120,606 RILEY P. WILSON,
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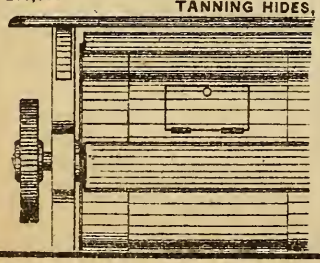
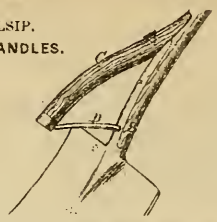


120,607
FRANK ALSIP.
SHOVEL-HANDLES.



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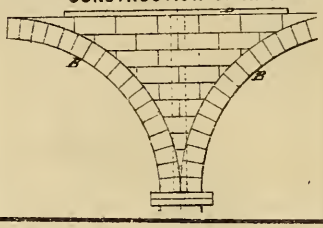
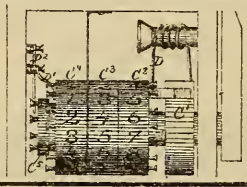
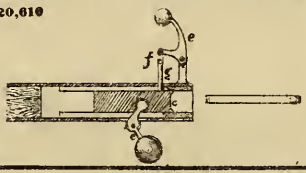
CONSTRUCTION OF ARCHES.



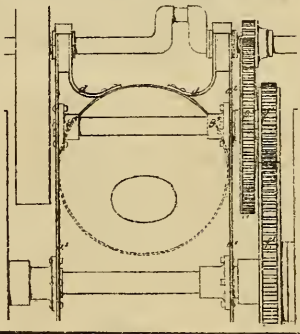
120,609 ALEXANDER P. ATKINSON.
COUNTING-REGISTERS.



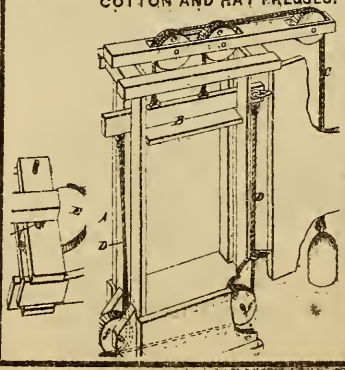
ANSON A. ATWATER,
RAILWAY-CAR COUPLINGS.
120,610



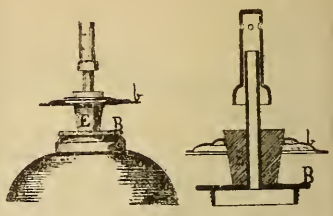
THOMAS AVELING,
TRACTION-ENGINES.
120,611



120,612 GEORGE H. AYLWORTH.
COTTON AND HAY PRESSES.



120,613 SILAS D. BALDWIN,
VAPOR-BURNERS.



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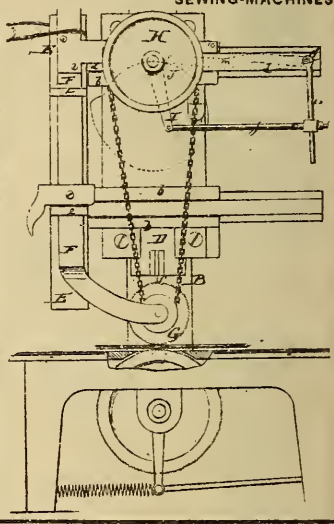
ADAM BARTH AND NICHOLAS BARTH,
SEWING-MACHINES.



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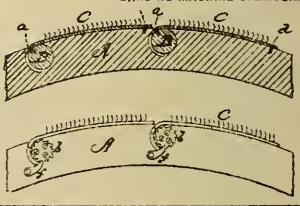
CARDING-MACHINE CYLINDERS.



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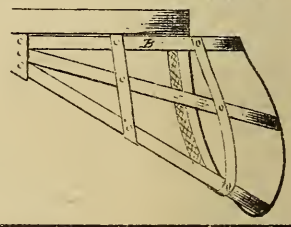
BUSTLES.



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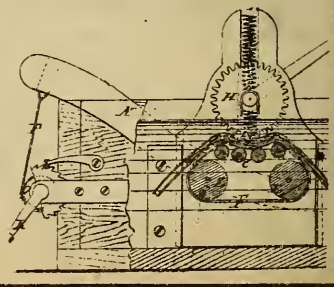
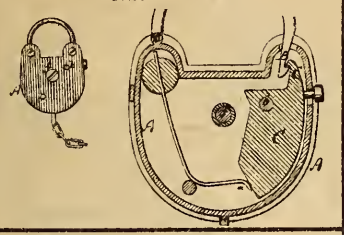
SHRINKING HAT-BODIES.



LEONARD C. BUTCH,
WATCHMAKERS' TOOLS.

120,618

120,619 LEVI F. CAHN,
CHAIN-LOCKS.



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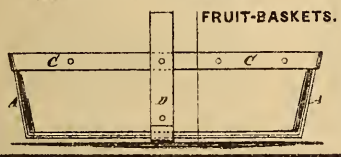
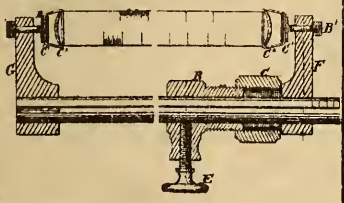
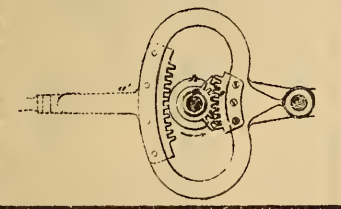
FRUIT-BASKETS.



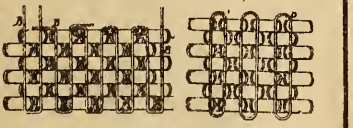
BAPTIST EDME CHASSAING.
120,621 MEASURING-SCALES.



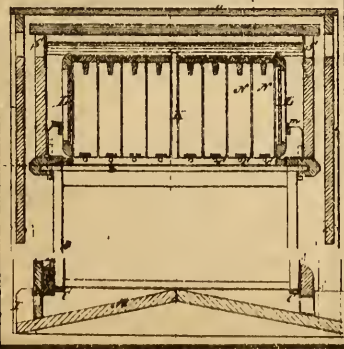
120,622 JOSEPH JULIEN CHENAL.
CONVERTING MOTION.



120,623 GEORGE W. CLAMPITT,
CHAINS FOR WATCHES, &c.

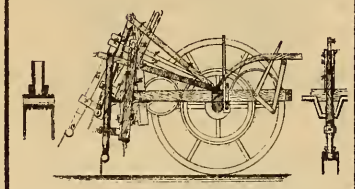


120,624 WILLIAM R. CLARK.
BEE-HIVES.

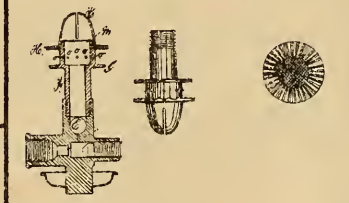


120,625 JOHN WEBSTER COCHRAN,
METALLIC CARTRIDGES.

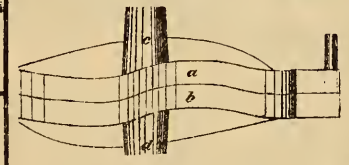
120,626 JOHN K. COLLINS.
HAY-TEDDERS.



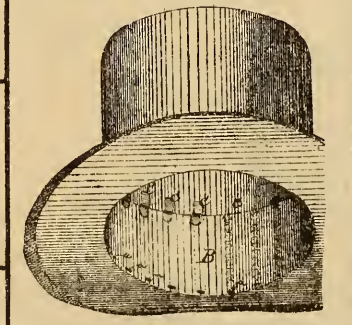
120,627 JOHN COOK.
VAPOR-BURNERS.



120,628 LOUIS COTÉ.
MAKING BOOT AND SHOE SOLES.



120,629 WILLIAM DALE,
VENTILATORS FOR HATS AND CAPS.

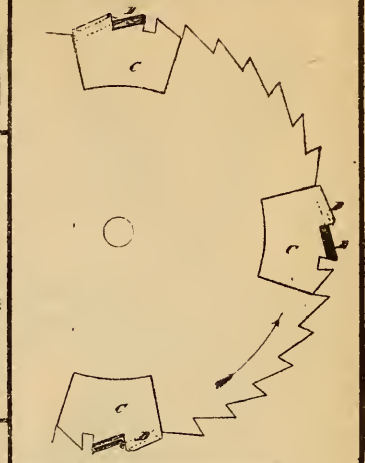


DE DARTEIN AND DE DARTEIN,
METALLIC CARTRIDGES. 120,630

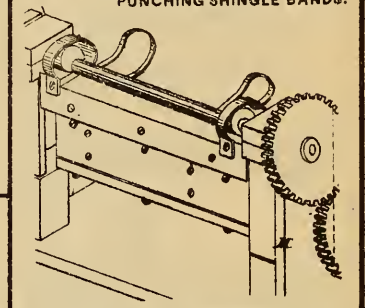
FLETCHER W. DICKERMAN,
SEATS FOR CHAIRS AND STOOLS.

120,632

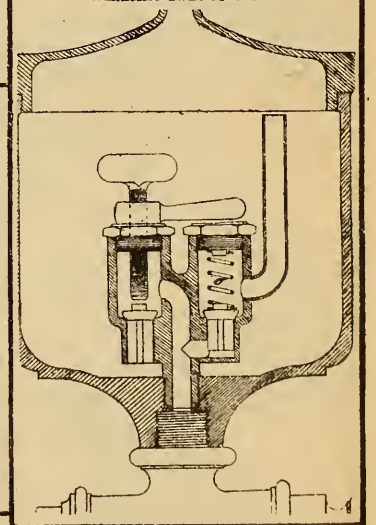
120,633 WILLIAM L. EARING, SAWS.



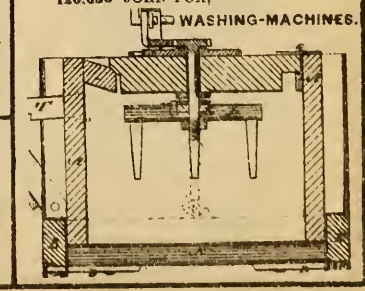
120,634 EVERITT AND AVERY,
PUNCHING SHINGLE BANDS.



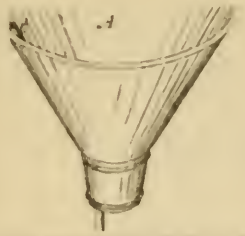
CONDENSING STEAM-ENGINES. 120,635
WILLIAM FLETCHER.



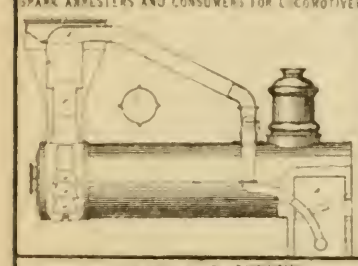
120,636 JOHN FOX,
WASHING-MACHINES.



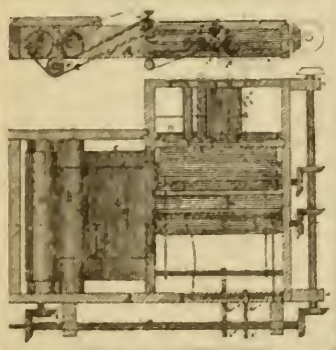
120,637 BRIDGET FRENCH
FUNNELS.



120,638. GEORGE H. GRIGGS.
SPARK ARRESTERS AND CONSUMERS FOR LOCOMOTIVES.



120,639 RICHARD R. GUBBINS.
PAPER-FOLDING MACHINES.



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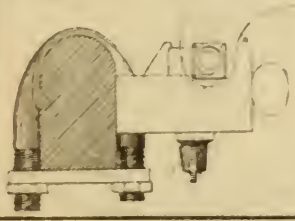
THILL-COUPLINGS.



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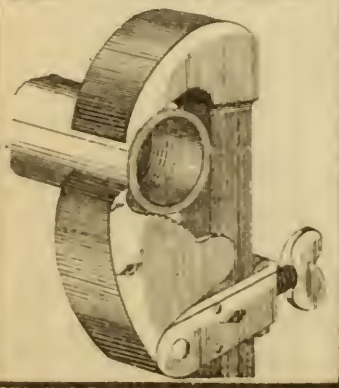
PIPE-WRENCHES.



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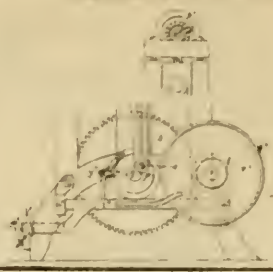

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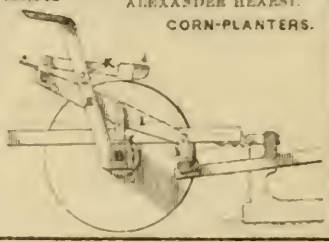
CORN-PLANTERS.



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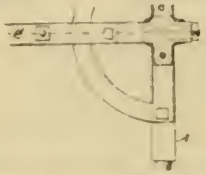
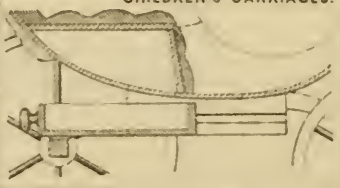
BUGGY-REACHES.



120,645 CHAUNCEY HOLT.
CHILDREN'S CARRIAGES.



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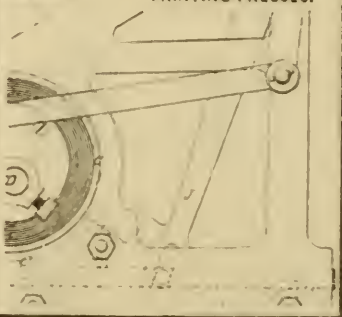
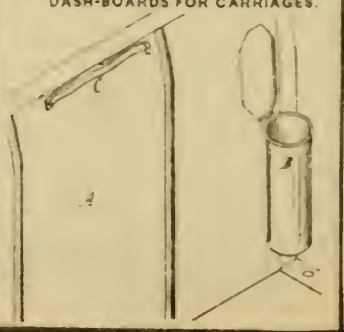


120,647 ARTEMAS B. HURD.
DASH-BOARDS FOR CARRIAGES.



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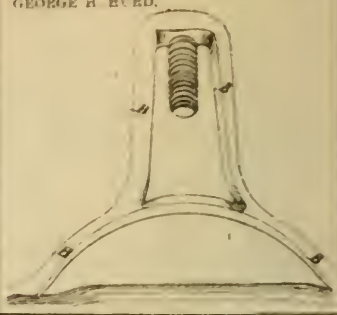
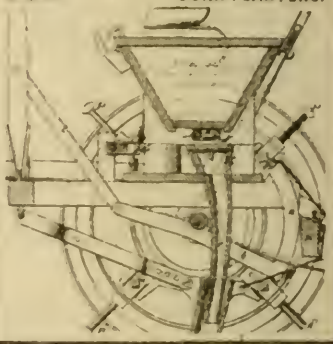
GEORGE H. HURD.



BENDIX INGEBRIGTSON.
120,649 CORN-PLANTERS.



THOMAS H. JOYCE
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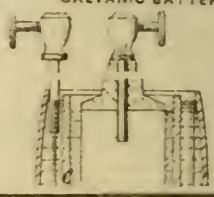
120,651 EDWIN J. LELAND
GALVANIC BATTERIES.



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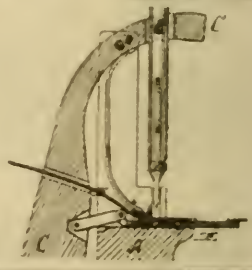

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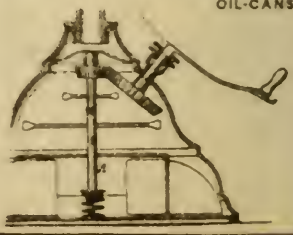
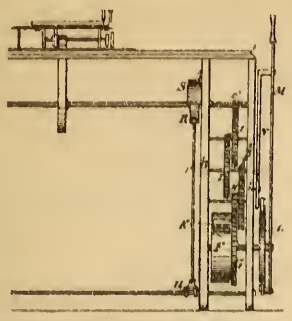
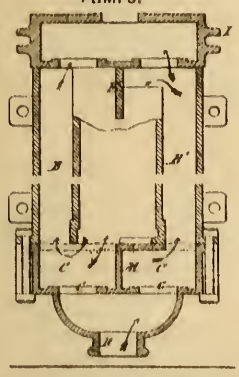
OIL-CANS.



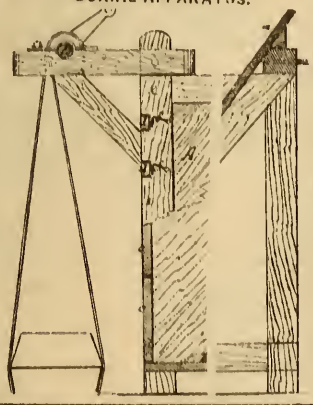
120,654 GEORGE W. MANSON.
OPERATING SEWING-MACHINES.



120,655 JOHN MARQUIS.
PUMPS.

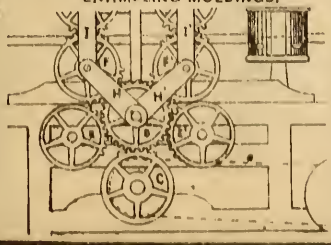


120,657 WILLIAM H. McGAVRAN
BURIAL APPARATUS.



120,658 DANIEL McNALLY.
PICKS AND RAMMERS.

120,659 THOMAS MOORE.
ENAMELING MOLDINGS.



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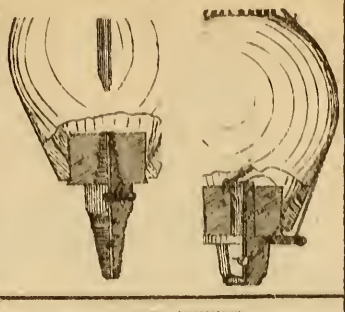
LUBRICATORS.



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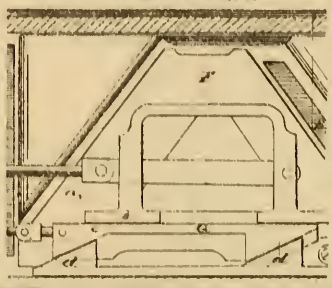
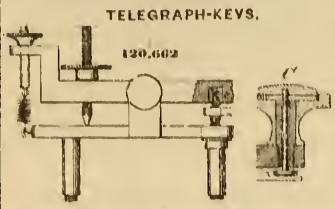
STEAM-ENGINES.



O'SULLIVAN AND O'SULLIVAN.
TELEGRAPH-KEYS.
120,662



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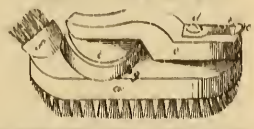
BLACKING-BRUSHES.



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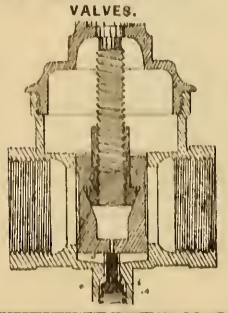
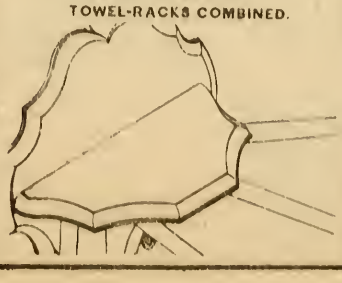
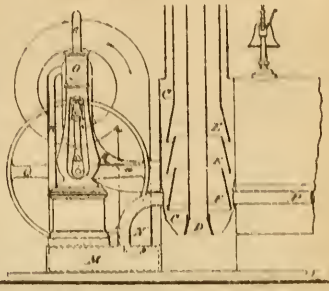
VALVES.



120,665 GEORGE W. PEIRCE.
BRACKETS AND
TOWEL-RACKS COMBINED.



120,666 CHARLES F. PIKE.
SPARK ARRESTERS AND CONSUMERS.



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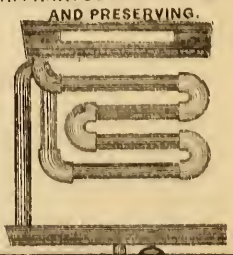
APPARATUS FOR COOLING
AND PRESERVING.



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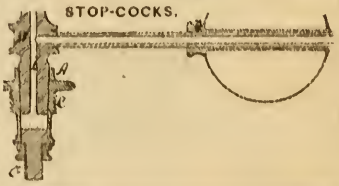
STOP-COCKS.



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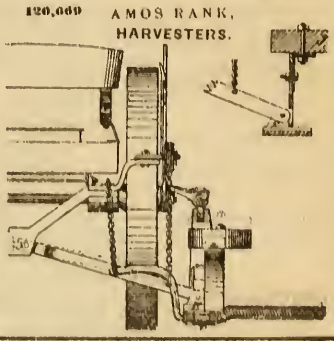
HARVESTERS.



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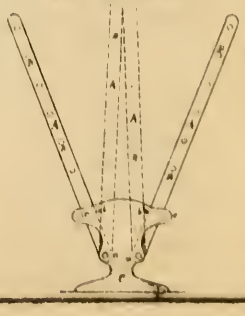
CASTERS FOR TRUNKS.

120,671 AUGUST G. SCHMIDT.
CLOTHES-RACKS.



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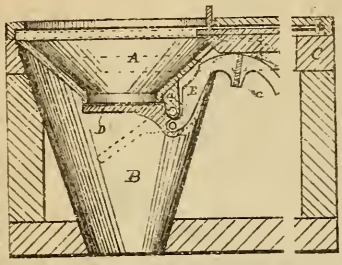
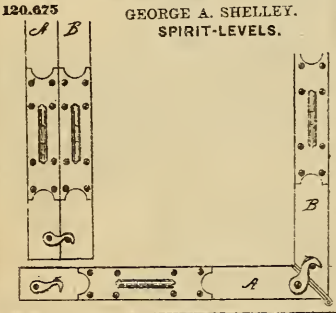
JONATHAN H. SEYMOUR.



120,674 JAMES S. SHANNON,
UTERINE-SUPPORTERS.

120,675 GEORGE A. SHELLEY.
SPIRIT-LEVELS.



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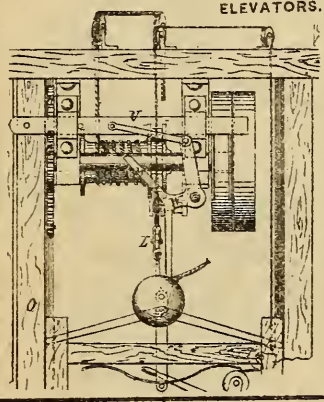
ELEVATORS.



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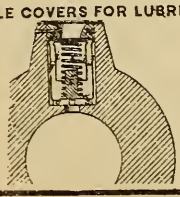
OIL-HOLE COVERS FOR LUBRICATORS.



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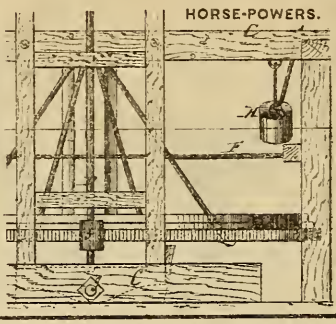
HORSE-POWERS.



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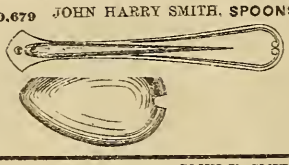
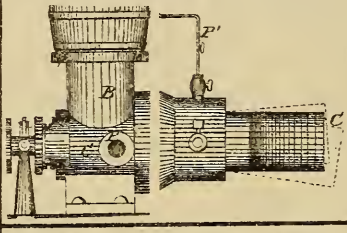
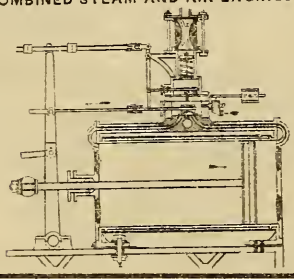


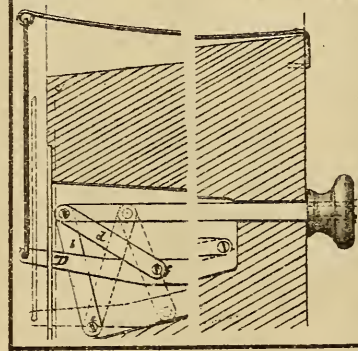
120,680 JOHN Y. SMITH,
FEEDING PULVERIZED FUEL TO FURNACES.



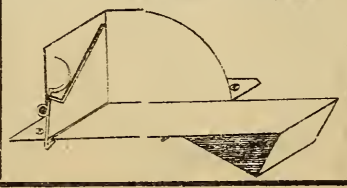
120,681 WILLIAM MONT STORM,
COMBINED STEAM AND AIR ENGINES.



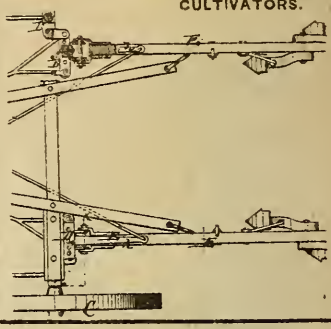
120,682 AMOS L. SWAN,
BELL-PULLS.



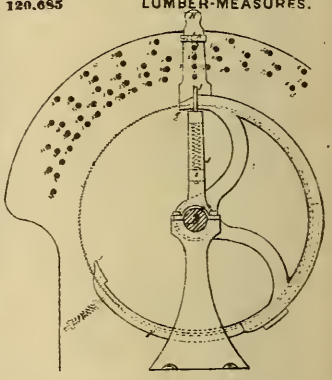
120,683 BENJAMIN F. TATEM,
GAME AND RAT-TRAPS.



120,684 JEROME H. TOMLINSON,
CULTIVATORS.



120,685 WILLIAM E. WALTON.
LUMBER-MEASURES.



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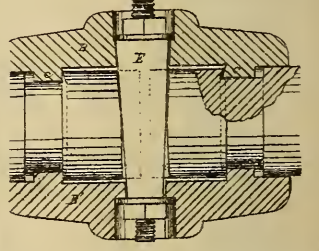
SHAFT-COUPLINGS.



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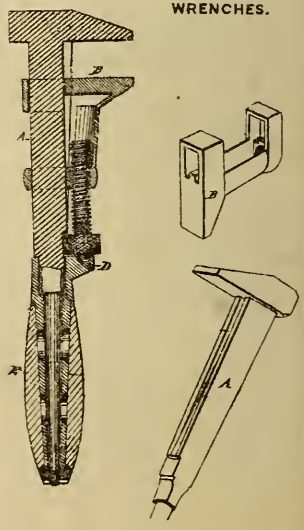
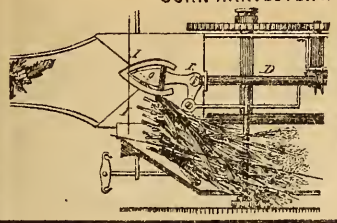
WRENCHES.



120,688 JOHN H. WHITNEY, CORN-HARVESTERS.



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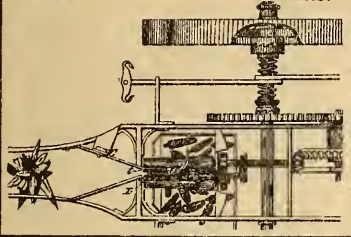
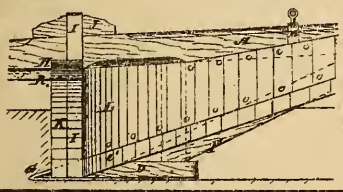
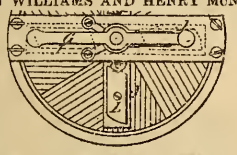


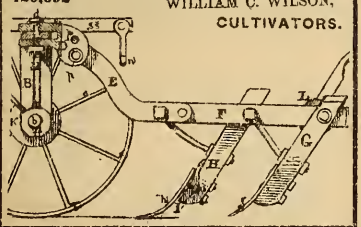
120,690 HENRY D. WILLIAMS. DITCHING-PLOWS.



120,691 WASHING-MACHINES. STEPHEN WILLIAMS AND HENRY McNEILL.

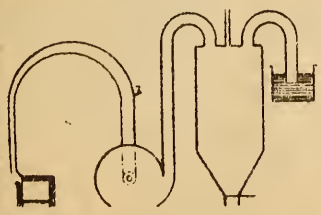


120,692 WILLIAM C. WILSON, CULTIVATORS.

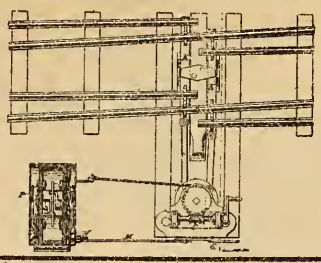


120,693 WALTER A. WOOD. OIL-HOLE COVERS FOR JOURNAL-BOXES.

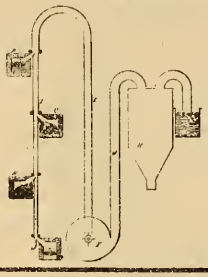
120,695 JOHN W. BAILEY, ROASTING AND TREATING ORES.



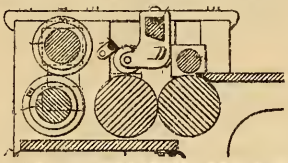
120,694 JOHN A. ANDERSON, RAILWAY SWITCHES AND SIGNALS.



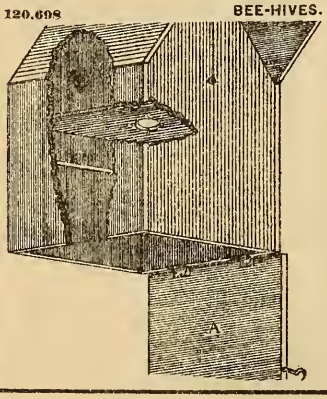
120,696 JOHN W. BAILEY, FURNACES FOR ROASTING ORES.



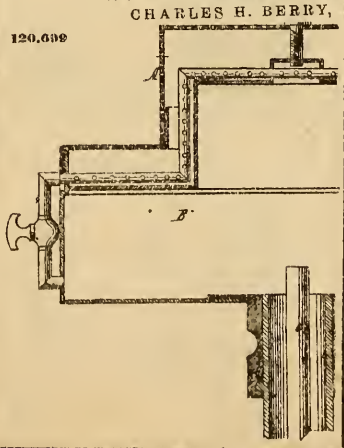
120,697 GEORGE BATES, PAPER-CUTTING AND SCORING MACHINE



120,698 BURR BENTON, BEE-HIVES.



HAT-BLOCKING MACHINES CHARLES H. BERRY, 120,699



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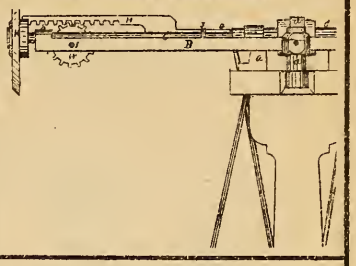

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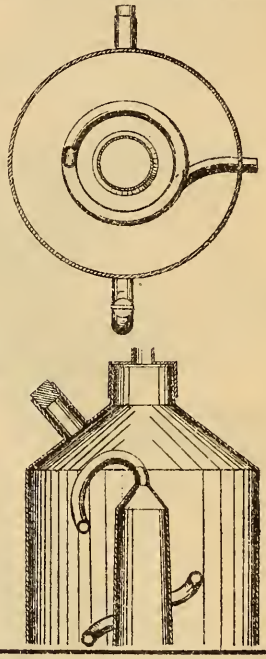
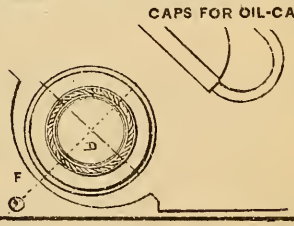
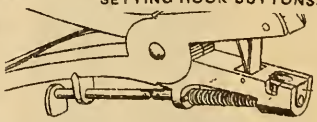


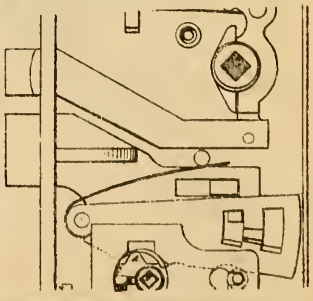
120,702 JABEZ A. BOSTWICK, CAPS FOR OIL-CANS.



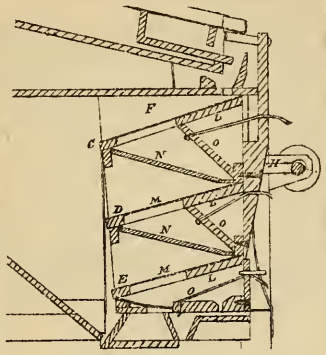
120,703 HORACE C. BRADFORD, SETTING HOOK-BUTTONS.



120,704 DOOR-LOCKS. JAMES BRADY.



JOHN B. BRENNAN AND WILLIAM TUCKER. 120,706 MIDDLINGS SEPARATORS.



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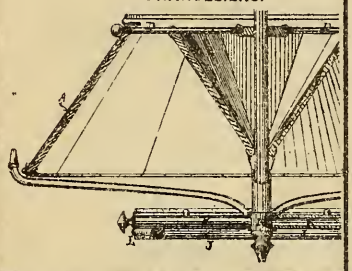
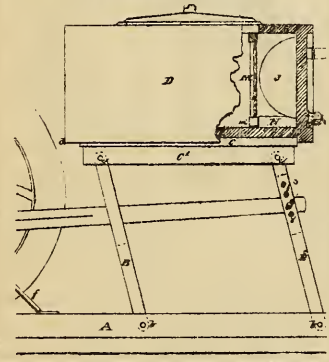
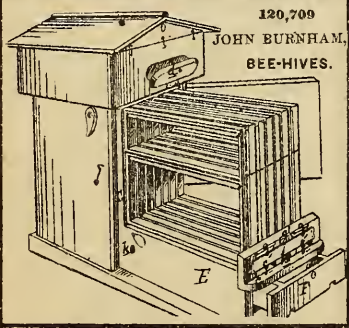


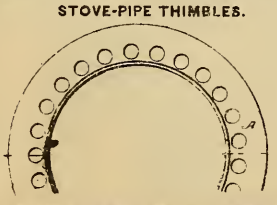
120,708 EZEKIEL W. BULLARD. OSCILLATING CHURNS.



120,709 JOHN BURNHAM, BEE-HIVES.



120,710 CEPHAS A. BUTTLES. STOVE-PIPE THIMBLES.



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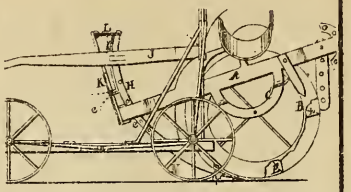

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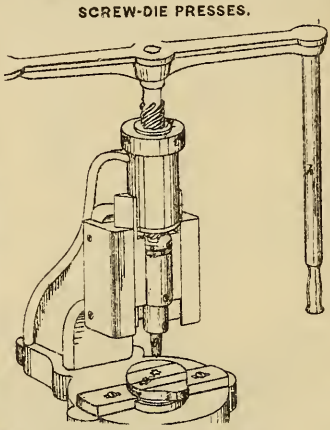

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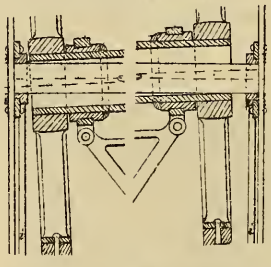
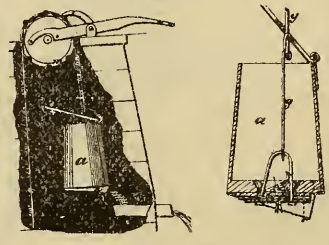
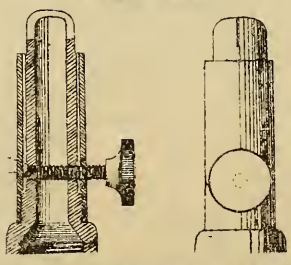


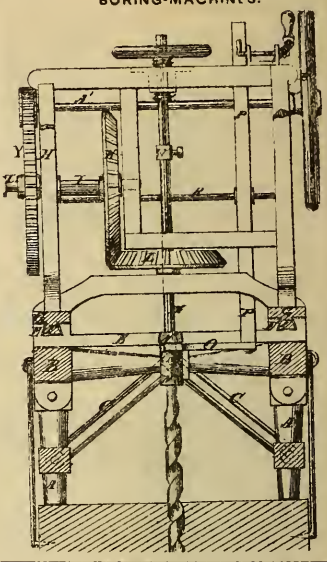
120,714 ALVEUS J. CLEMMONS. WATER-ELEVATORS.



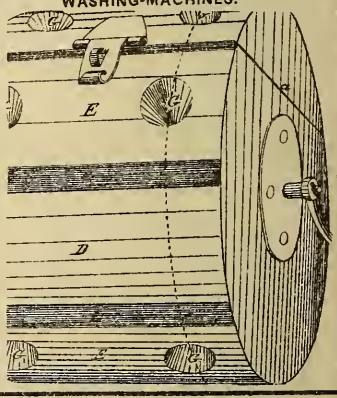
120,715 THEODORE CLOUGH, GAS-BURNERS.



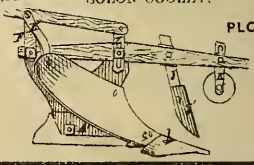
120,716 GEORGE F. CLUFF. BORING-MACHINES.



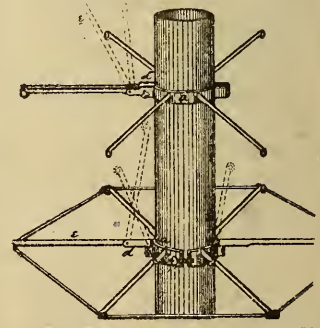
MARGARET P. COLVIN, 120,717 WASHING-MACHINES.



120,718 SOLON COOLEY. PLOWS.

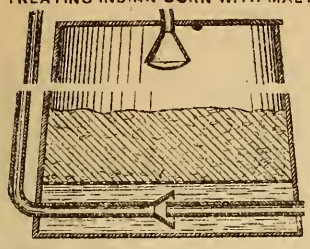


GABRIEL FELIX COUTY. 120,719 CLOTHES-DRIERS.



SAMUEL D. CRAFT, 120,720 CARRIAGE-WHEELS.

120,721 MATJAS CZINER,
TREATING INDIAN CORN WITH MALT



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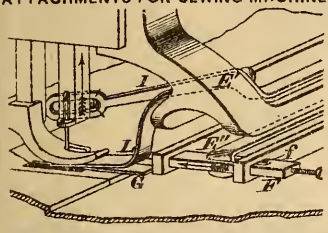
ATTACHMENTS FOR SEWING-MACHINES.



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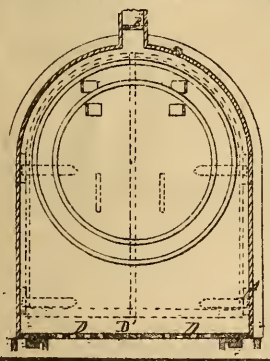
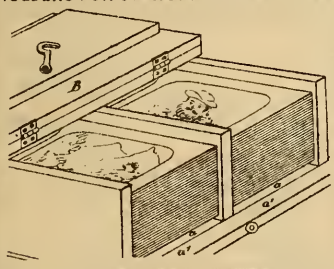
FURNACES FOR HEATING TIRES.



120,724 JOHN L. DIBBLE,
HOLDERS FOR STEREOSCOPIC PICTURES



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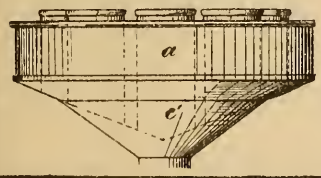

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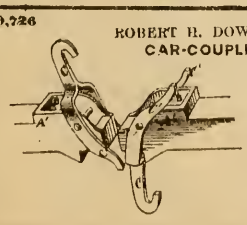
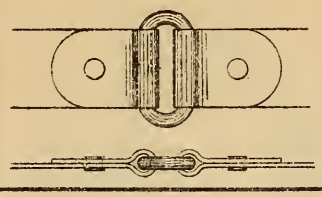
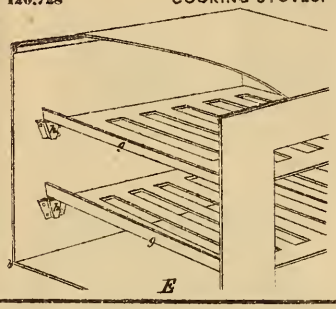


120,727 JOHN DOWNES,
BANDS FOR BALING COTTON,



120,728 PASCHAL P. ELLIS,
COOKING-STOVES.



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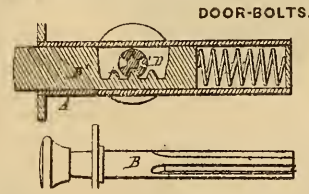
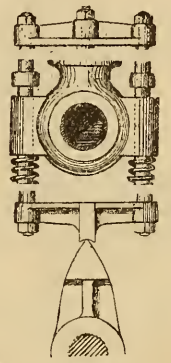
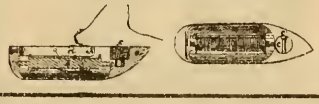
DOOR-BOLTS.



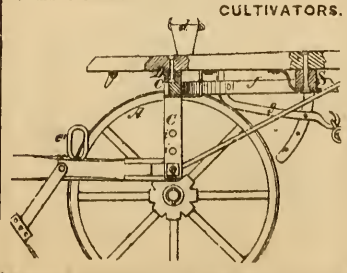
120,730 JOHN EVERDING,
DEVICES FOR ARRESTING MOTION.



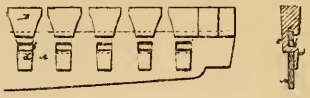
120,731 GEORGE A. FAIRFIELD,
SHUTTLES FOR SEWING-MACHINES.



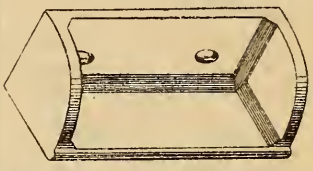
120,732 JOHN FANING AND FRIEDRICH LEGLER
CULTIVATORS.



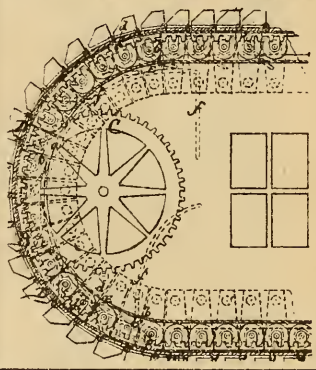
120,733 ADDISON C. FLETCHER,
GRATE-BARS.



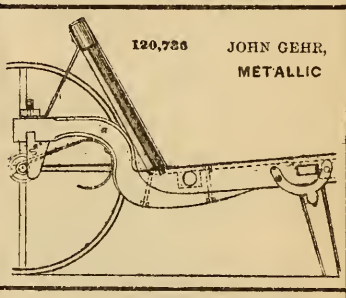
120,734 FREDERIC G. FORD,
SLAT-HOLDERS FOR BEDSTEADS.



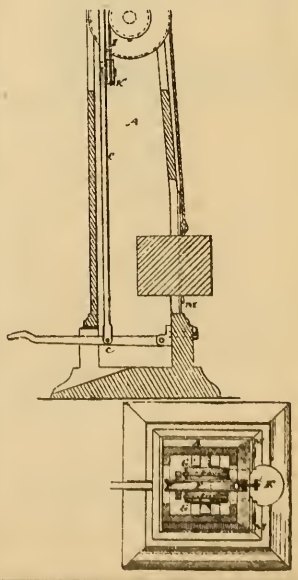
120,735 SAMUEL F. GARD,
PROPULSION OF VESSELS.



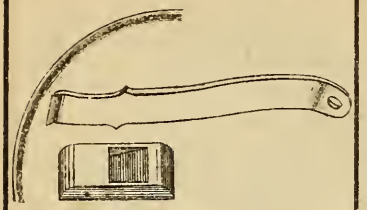
120,736 JOHN GEHR,
METALLIC



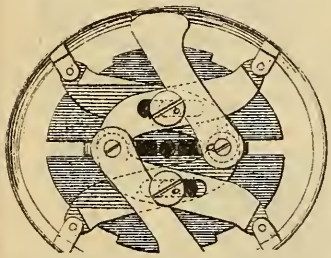
120,737 DALPHON L. GIBBS,
MORTISING-MACHINES.



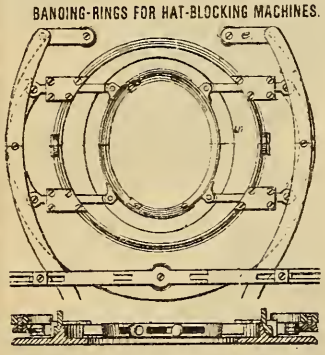
120,738 ROBERT C. GRAVES. STOVE-LIDS.



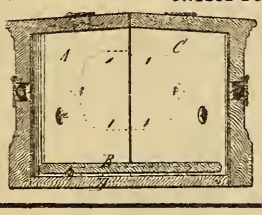
120,739 WILLIAM C. GRISWOLD. CROWN-BLOCKS FOR HAT-BLOCKING MACHINES.



120,740 GEORGE HAYDEN. BANDING-RINGS FOR HAT-BLOCKING MACHINES.



120,741 JOHN JEFFERS HECOX, CHEESE-BOXES.



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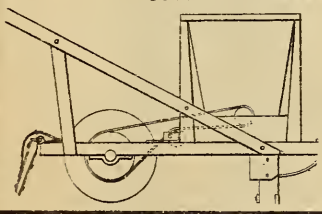

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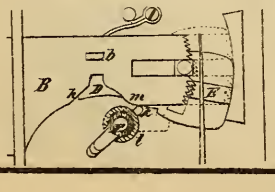

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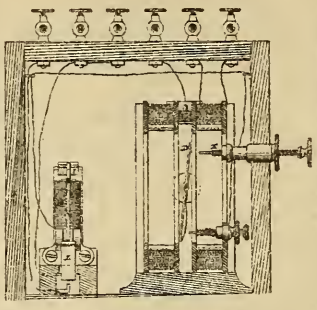

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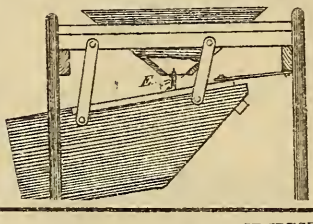

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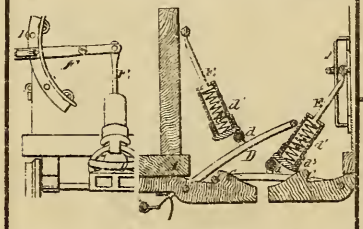
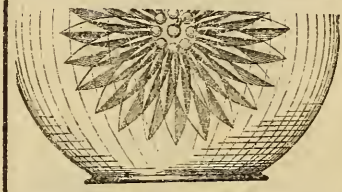
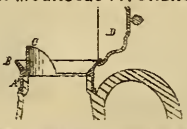


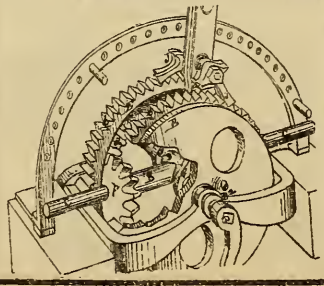
120,747 GEORGE M. IRWIN, GLASS GLOBES FOR LAMPS.



120,748 GEORGE M. IRWIN. TOPS FOR MOLASSES-PITCHERS.



120,749 WILLIAM S. JENKS. HEAD-BLOCKS FOR SAW-MILLS.



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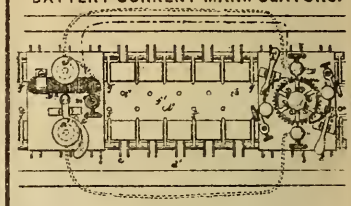

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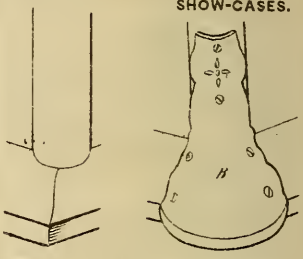
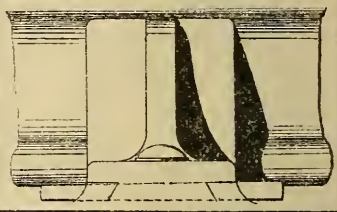
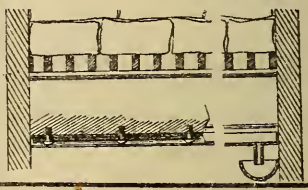


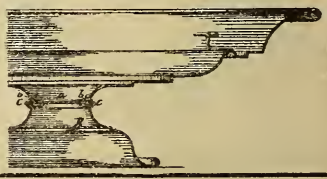
120,753 JOHN LIDDERD, RAILWAY CHAIRS.



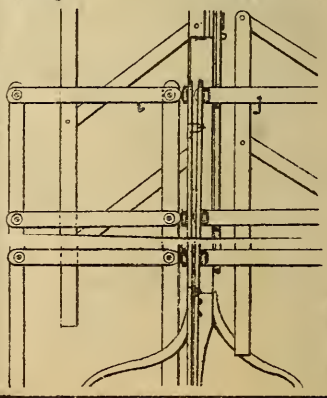
120,754 CHARLES LIEBMANN. ICE-HOUSES.



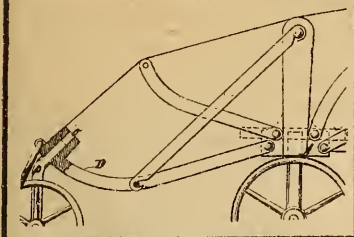
120,755 OTTO LINDEMANN, BOTTOMS OF BIRD-CAGES.



120,756 HAYDEN J. LOCKWOOD. CLOTHES-DRIERS.



HERMAN LUTZ, 120,757
FOLDING CARRIAGES FOR CHILDREN.



120,758 DANIEL MATER, JR.,
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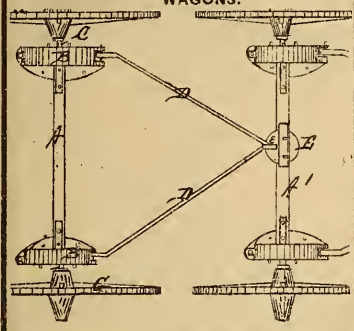
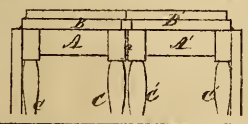


120,759 LOUIS MENZER, TABLES.



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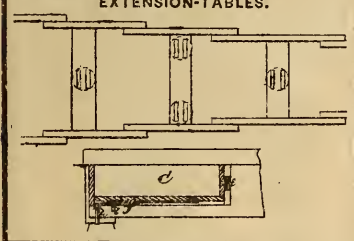

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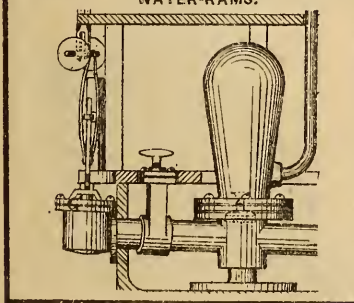

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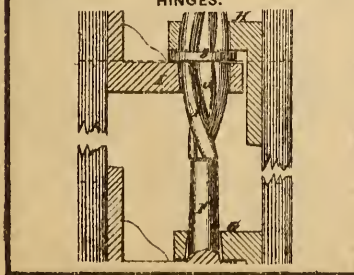

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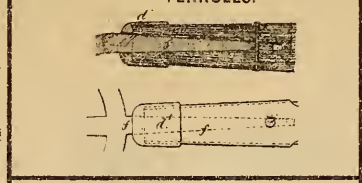
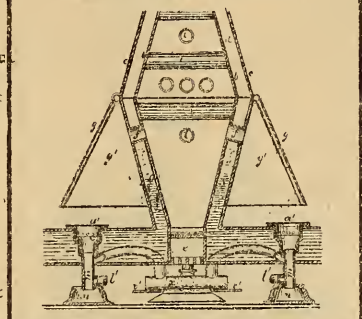


120,764 JOSEPH R. MORRIS.
GAS-FURNACES AND FORGES.



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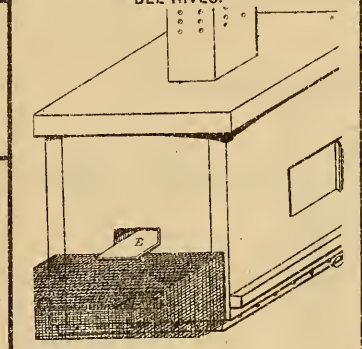

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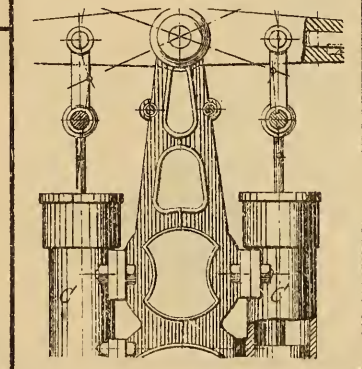

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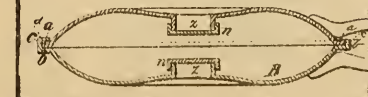

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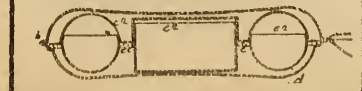

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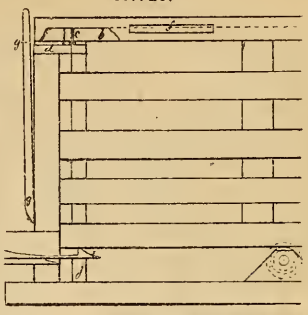

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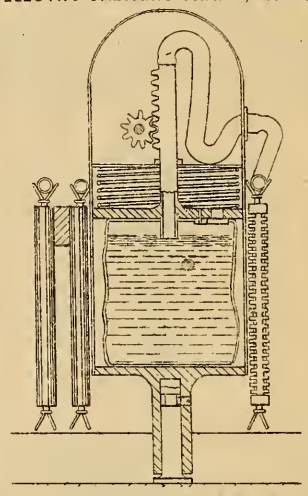

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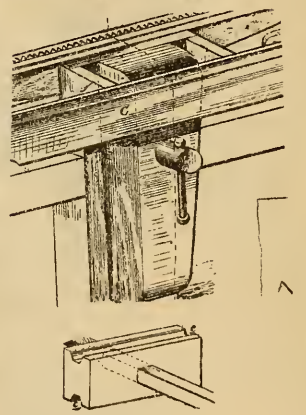
SAW-FILERS.



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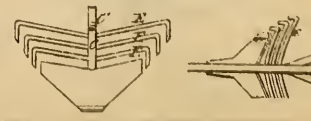
120,775 RICHARD B. ROBBINS,
POTATO-DIGGERS.



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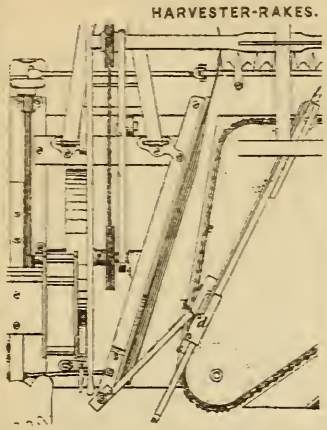
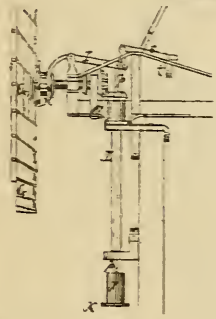


120,778 ASAHEL D. RUDDOCK. WINDMILLS.



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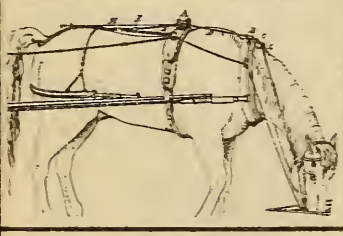

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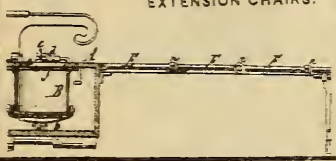

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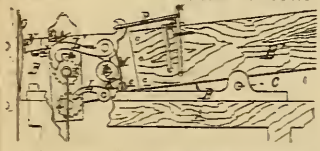

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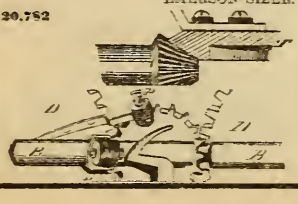
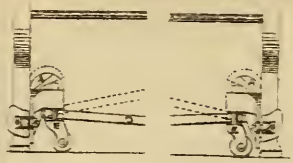
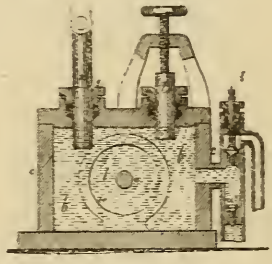


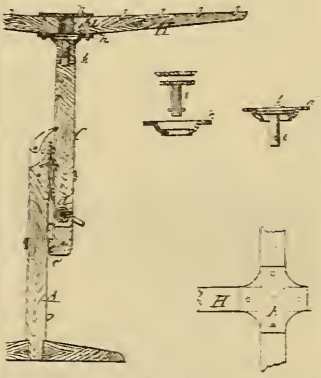
120,783 HENRY A. SKINNER. CASTERS FOR SEWING-MACHINES.



120,784 AUSTIN H. SMITH. STONE-CRUSHING APPARATUS.



120,785 SMITH AND DIETRICH. CLOTHES-DRIERS.



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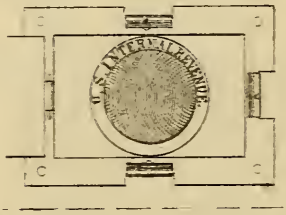

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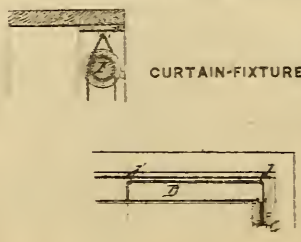
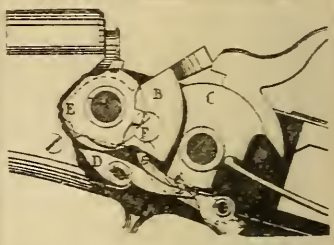
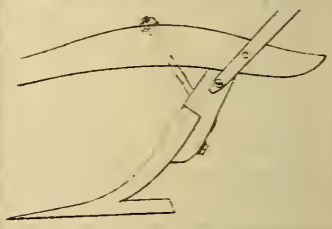


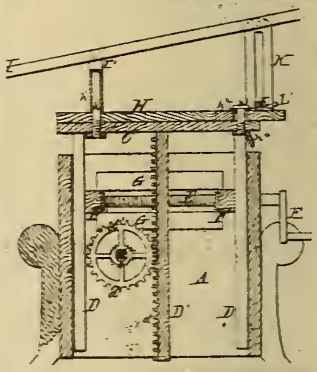
120,788 WILLIAM S. SMOOT. BREECH-LOADING FIRE-ARMS.



120,789 SAMUEL SNIDER. CULTIVATORS.



120,790 CHARLES H. SNIVELY. CAMERA-STANDS.



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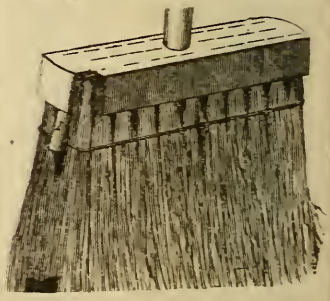
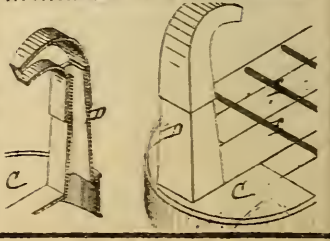
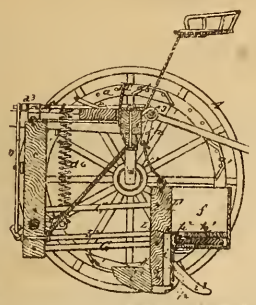


120,792 CHARLES W. STERICK. ATTACHMENTS FOR WASH-BOILERS.



120,793 SETH STEVENS.
CORN-PLANTERS.



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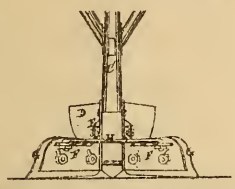

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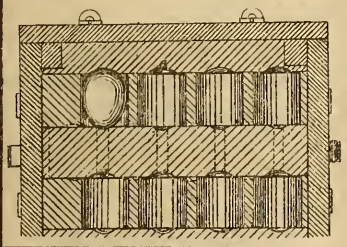

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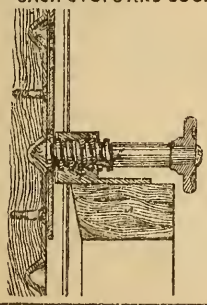

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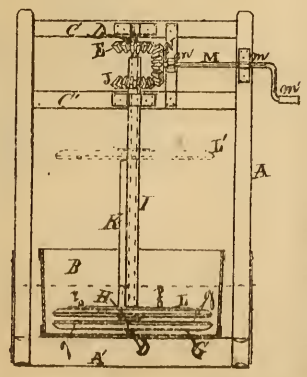

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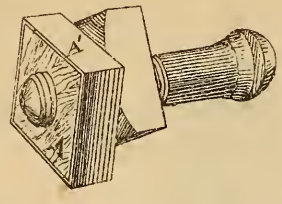

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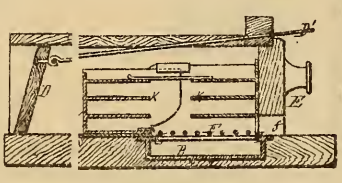

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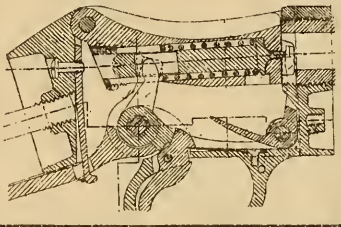

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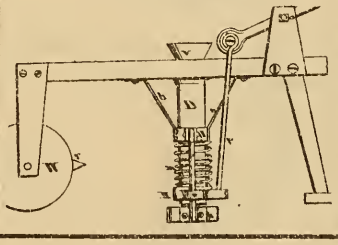
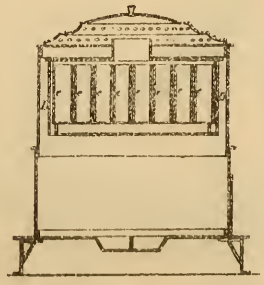
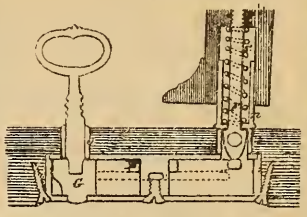


120,802 JOHN W. O. WEBB.
HEATING-STOVES.



120,804 ELBERT D. WEYBURN.
LOCKS FOR PIANOS, &c.



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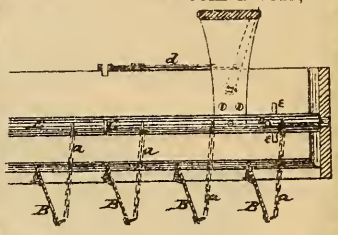
JOHN I. WOLF,



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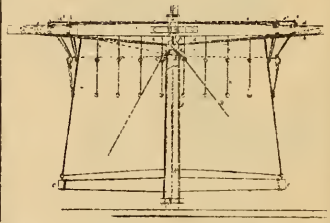

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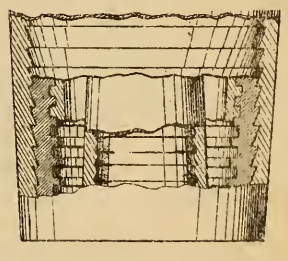
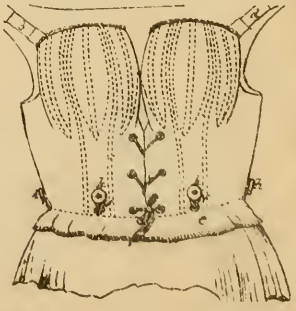
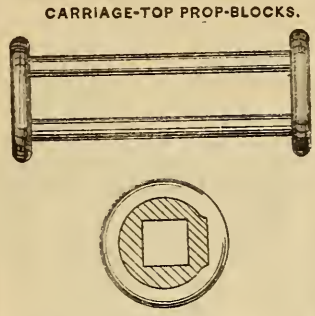


120,808 SAPPHIRA YOUNG,
SKIRT-SUPPORTING CORSETS.



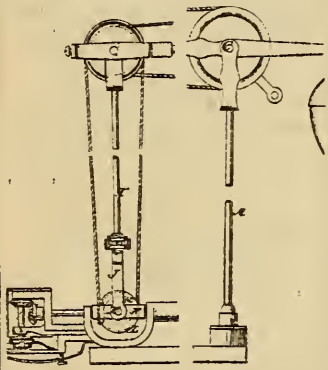
4,621 BARNETT AND BEERY,

CARRIAGE-TOP PROP-BLOCKS.



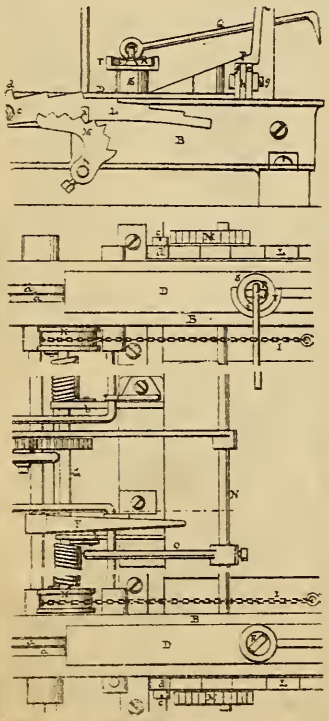
4,623 ROSWELL T. SMITH.

TRANSMITTING MOTIVE POWER.



4,625 EDWARD H. STEARNS,

HEAD-BLOCKS.



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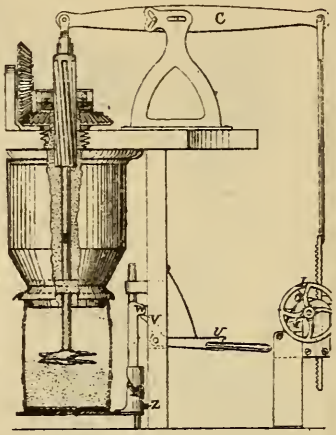

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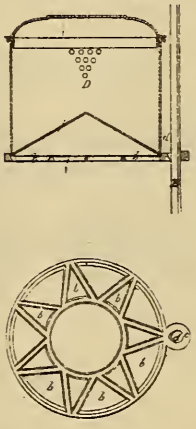
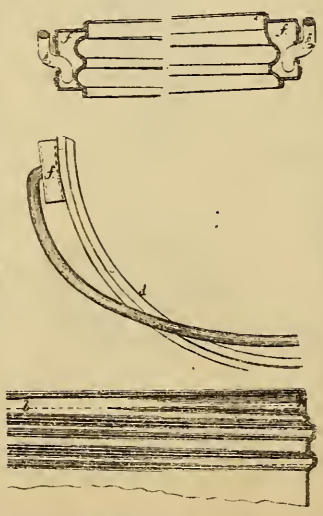


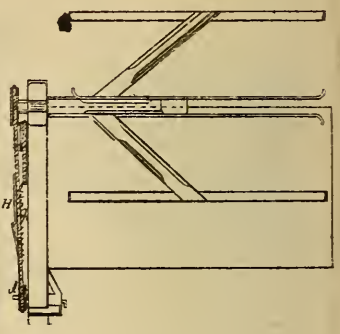
4,628 JOHN K. CHACE,

FASTENINGS FOR PAINT-CANS, &c.



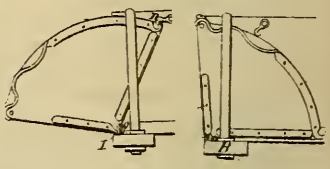
4,629 JOHN H. KELLER.

HARVESTER-REELS



4,631 JEREMIAH L. STROPES.

END-GATES FOR WAGONS.



4,632 JACOB P. TIRRELL,

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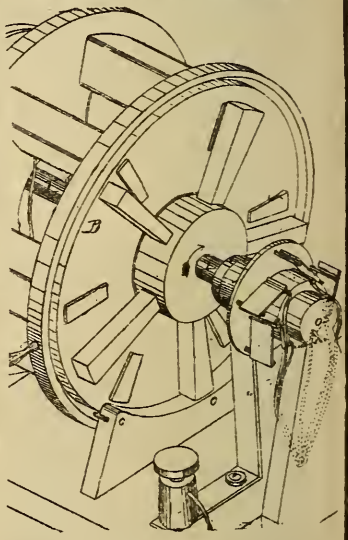
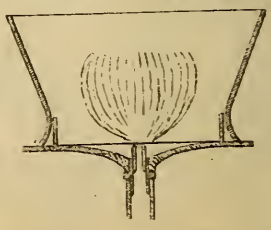


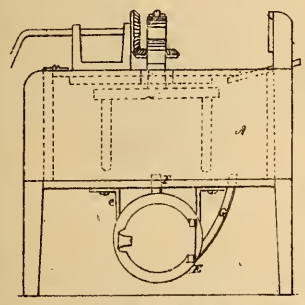
4,633 TOUSSAINT TRUDEAU.

GLOBES FOR GAS-LIGHTS.

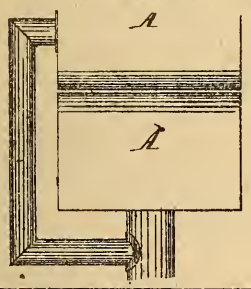


ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
NOVEMBER 14, 1871.

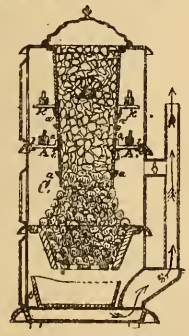
120,809 WILLIAM ARNOLD, WASHING-MACHINES.



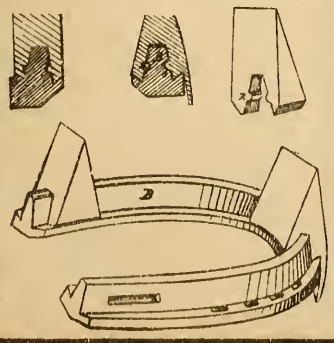
120,810 HEZEKIAH DODGE, DRYING AND FINISHING PAPER.



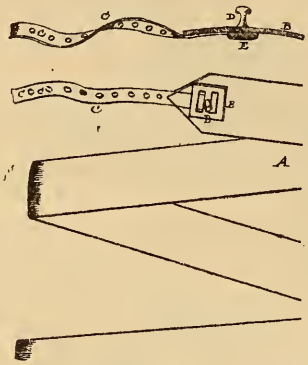
120,811 WILLIAM DOYLE, BASE-BURNING STOVES.



120,813 DAVID GRIM, HORSESHOES.



120,814 JOHN G. GROOCOCK, SURGICAL BANDAGES.



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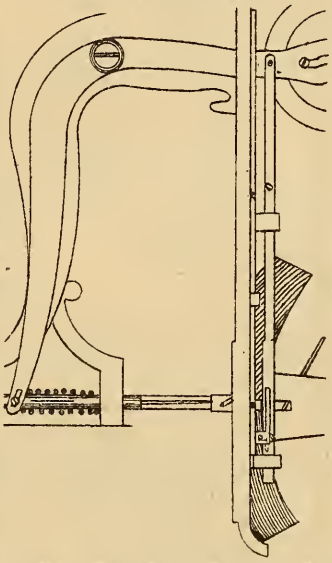
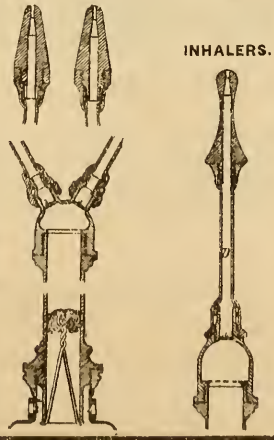
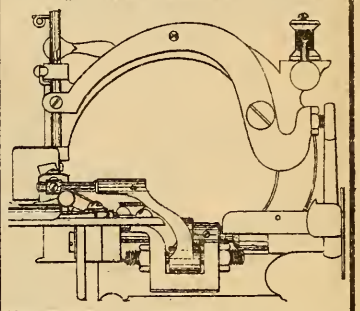


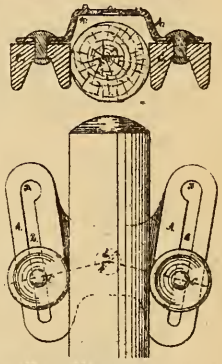
120,816 RUSH B. HEINTZELMAN. INHALERS.



120,817 ELIJAH LEAVITT HOWARD, DEVICES FOR SEWING-MACHINES.



120,818 GEORGE B. ISHAM, BROOM AND MOP HOLDERS.



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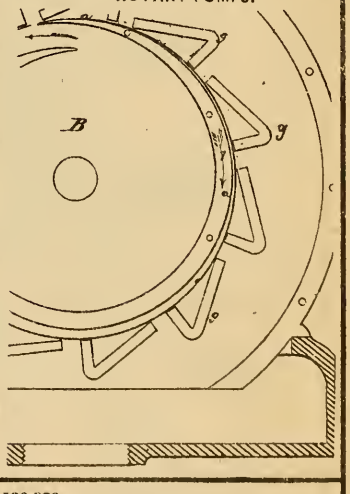
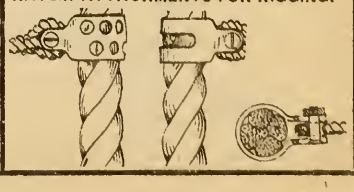


120,820 JOHN C. KNOWLTON, RATLIN ATTACHMENTS FOR RIGGING.



120,821 GARRETT C. LOWE,
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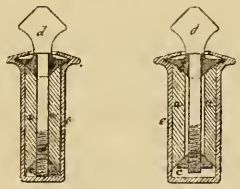

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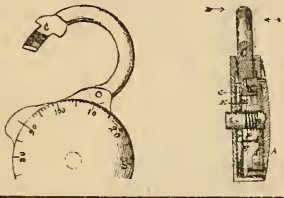
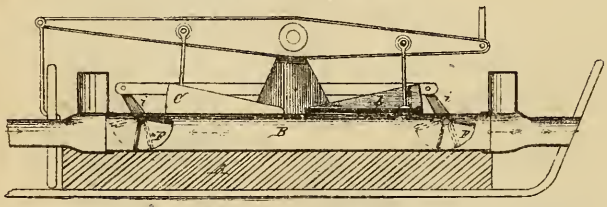
PERMUTATION PADLOCKS.



120,823 JOSEPH M. McMASTER,
PROPULSION OF CANAL-BOATS.



120,824 WILLIAM T. McMILLEN,
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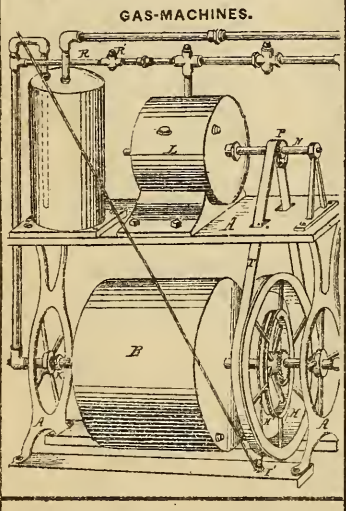
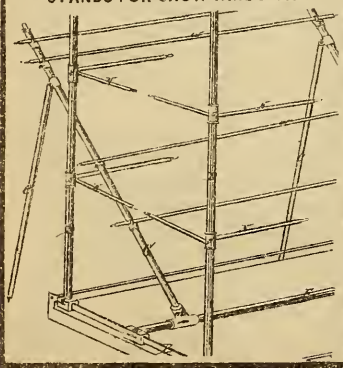
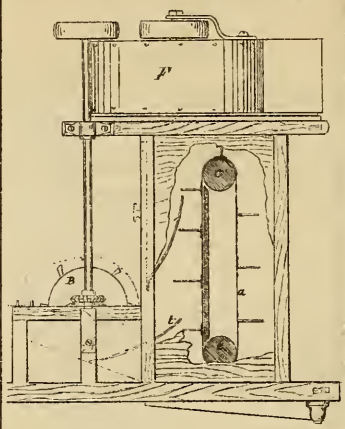


120,825 JOSEPH R. PALMENBERG,
STANDS FOR SHOW-WINDOWS.



120,826 AURELIUS V. PITTS,
THRASHING-MACHINES.



120,827 ROBERT L. PRIESTER,
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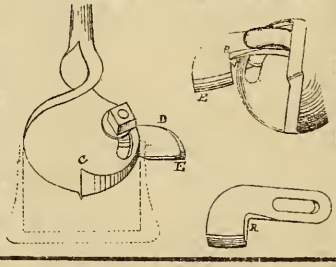

MOSES T. RIDOUT, GRAIN-BINDERS.
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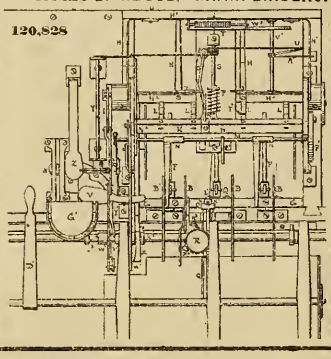

JOHN SIDDONS, METALLIC ROOFINGS.
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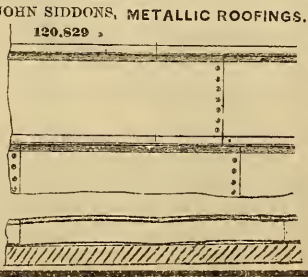

120,830 CHARLES T. SIMPERS,
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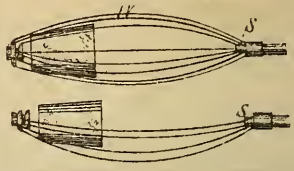

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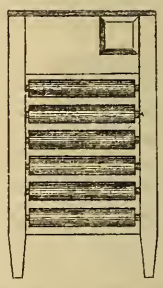
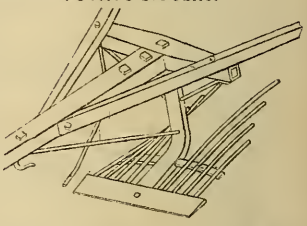
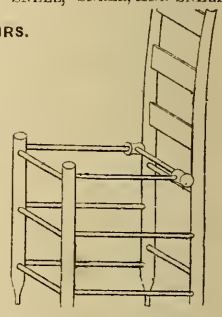


120,832 JOSEPH SMITH,
POTATO-DIGGERS.



120,833 SNELL, SNELL, AND SNELL,
CHAIRS.



120,834 DANIEL M. SPROGLE,
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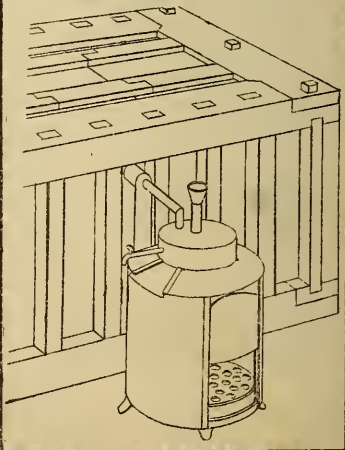
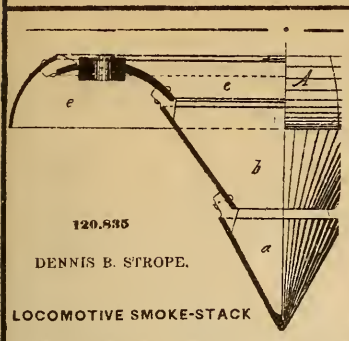
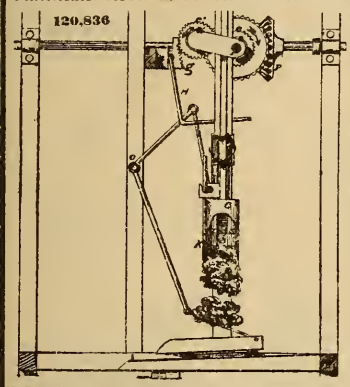




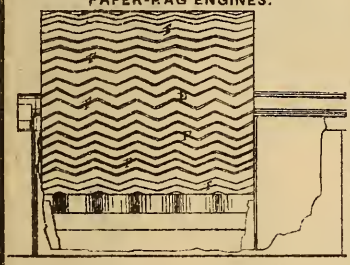
120,835 DENNIS B. STROPE. LOCOMOTIVE SMOKE-STACK

FRANKLIN TAYLOR. DITCHING-MACHINE



120,836

120,837 TAYLOR AND BRIGHTMAN. PAPER-RAG ENGINES.



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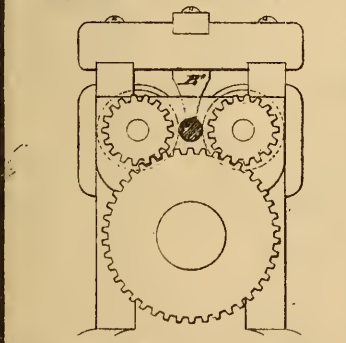
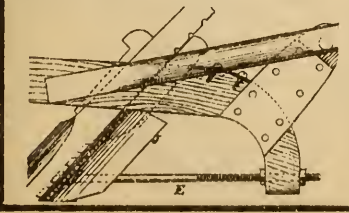
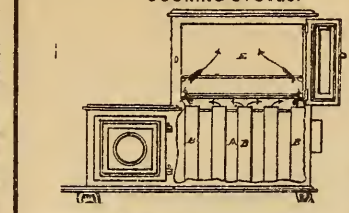


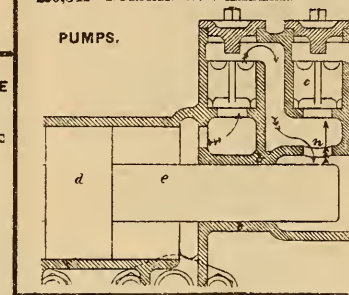
120,839 GEORGE TRUMP, ROOT-CUTTERS AND SHOVEL-PLOWS.



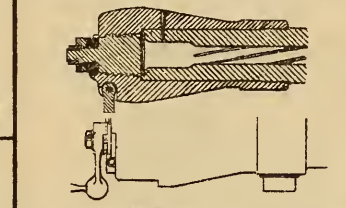
120,840 JOHN W. O. WEBB, COOKING-STOVES.



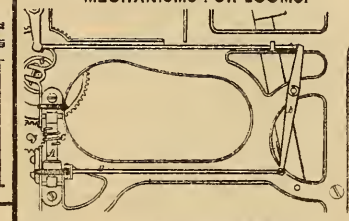
120,841 NORMAN W. WHEELER. PUMPS.



120,842 JOSEPH WHITWORTH, BREECH-LOADING ORDNANCE.



120,843 ANDREW J. WOODMAN, MECHANISMS FOR LOOMS.



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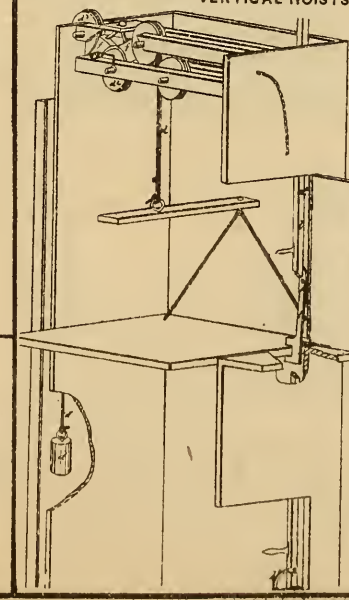
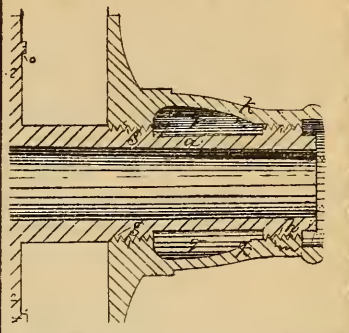
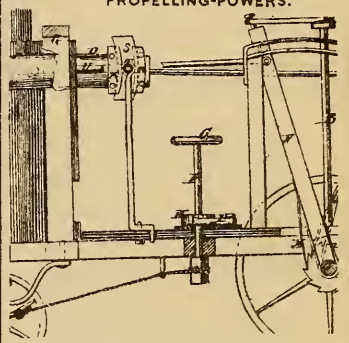


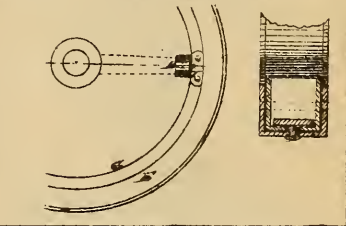
120,845 EDWARD A. ARCHIBALD, HUBS FOR CARRIAGE-WHEELS.



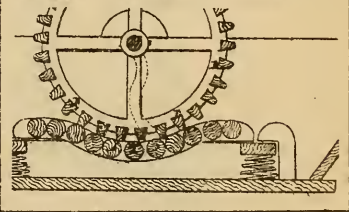
120,846 NATHANIEL B. BALDWIN, PROPELLING-POWERS.



120,847 ISAAC E. BOWER, CARRIAGE-WHEELS.



CAMPBELL, CAMPBELL, AND BROWER, 120,848 WASHING-MACHINES.



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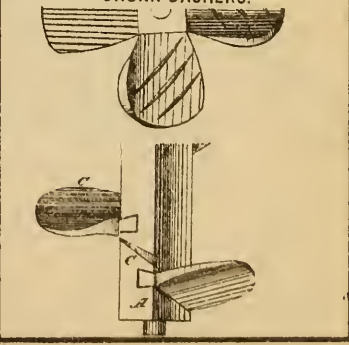
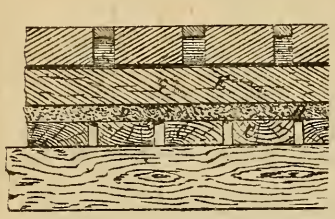
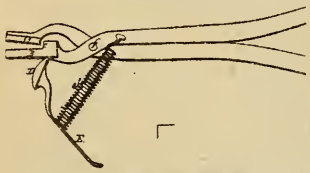


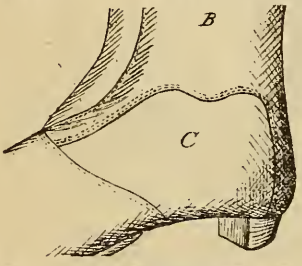
120,850 MANLY A. BURNHAM, LAYING TILES.



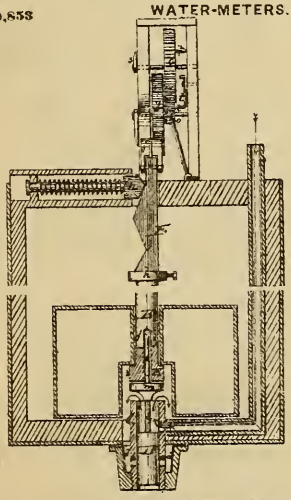
120,851 ORRIN W. BURRITT, TIN-ROOFING MACHINES.



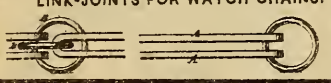
120,852 FREEMAN P. BUZZELL, SHOES AND GAITERS.



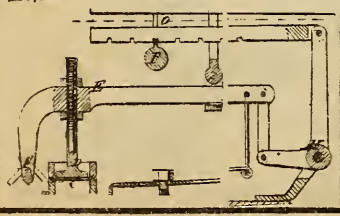
120,853 CAMILLE CAMPEAUX, WATER-METERS.



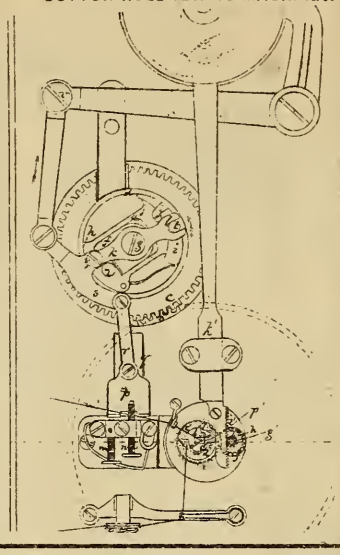
120,854 CHARLES B. CARPENTER, LINK-JOINTS FOR WATCH-CHAINS.



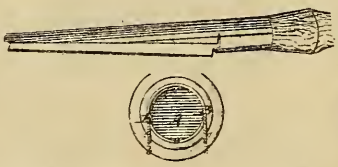
120,856 GEORGE W. CLARK, STEAM-GOVERNORS.



120,855 CHICKEN AND MOULTON, BUTTON-HOLE SEWING-MACHINES.



120,857 STEPHEN C. COLLINS, APPLE-CORERS.



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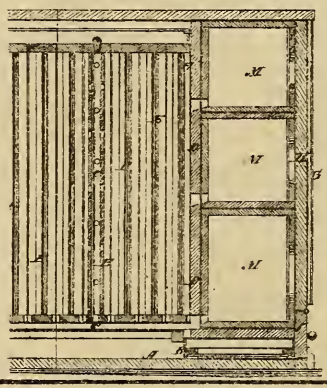
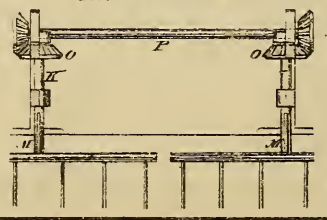


120,859 JUSTUS COOK, EVAPORATING APPARATUS.



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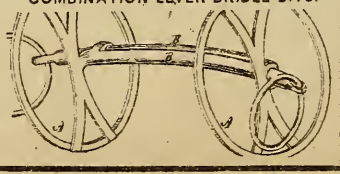

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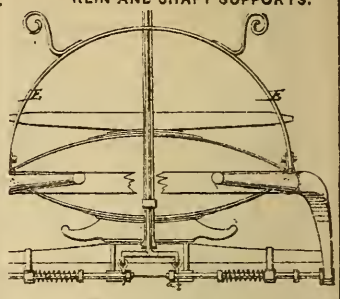
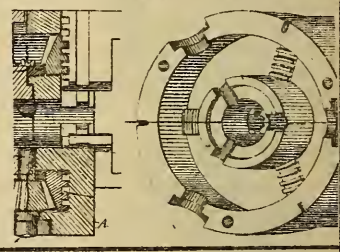
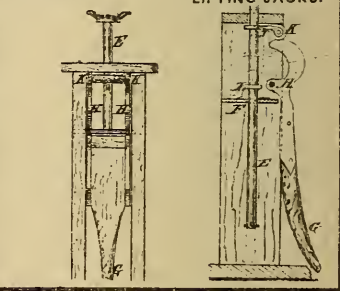


120,862 CHARLES WILLIAM CURTIS, MANUFACTURE OF GUNPOWDER.

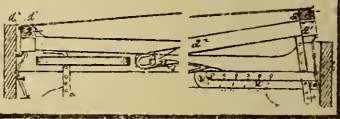
120,863 AUSTIN F. CUSHMAN, MACHINISTS' LATHE-CHUCKS.



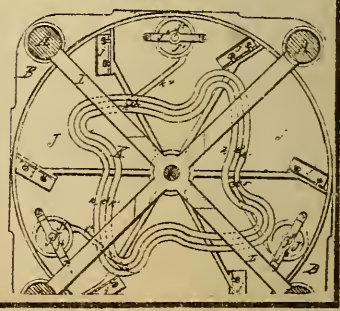
120,864 ARTHUR A. DAVIS, LIFTING-JACKS.



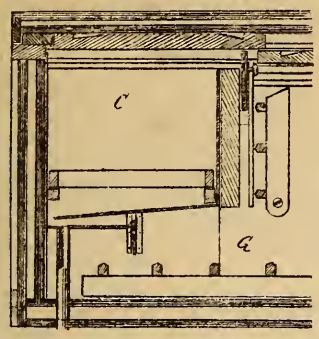
120,865 JOHN M. FARNHAM, SPRING-BEDS.



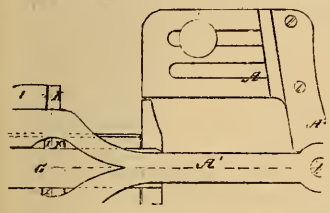
120,866 JACOB FELBER, "EXCELSIOR" MACHINES.



120,867 JAMES W. FISHER,
REFRIGERATORS.



120,868 DAVID FORREST,
HEMMERS FOR SEWING-MACHINES.



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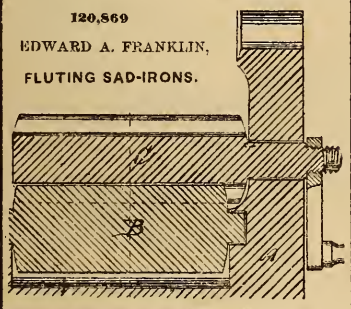
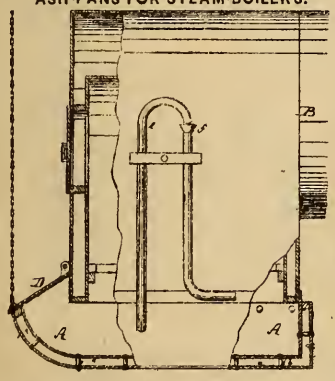
EDWARD A. FRANKLIN,
FLUTING SAD-IRONS.

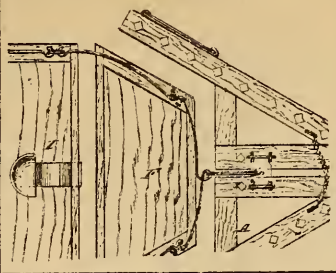


120,870 JOHN GATES,
ASH-PANS FOR STEAM-BOILERS.

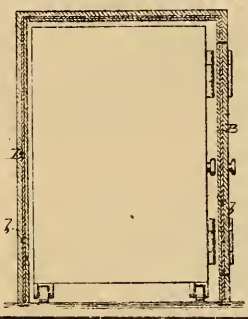


120,872 GEORGE W. GRISWOLD,
MUSIC-STOOLS, STANDS, AND WORK-TABLES.

120,873 ELIAL S. HERRINGTON,
HARROWS.



120,874 EDWIN HOLMES,
ELECTRIC LININGS FOR SAFES.



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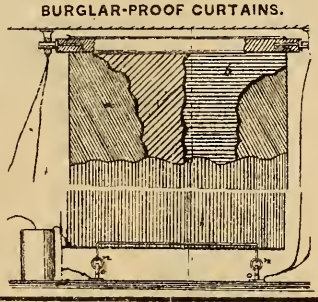
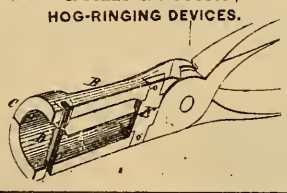
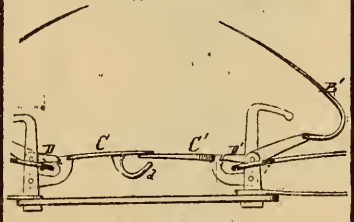
BURGLAR-PROOF CURTAINS.



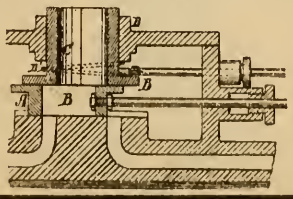
120,876 WINFIELD S. HOUSTON,
HOG-RINGING DEVICES.



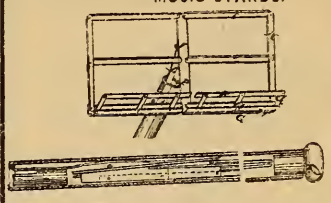
120,877 NATHAN S. HOWELL,
ANIMAL-TRAPS.



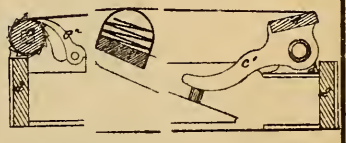
120,878 HUNTINGTON AND HEMPSTEAD,
VALVES FOR STEAM-ENGINES.



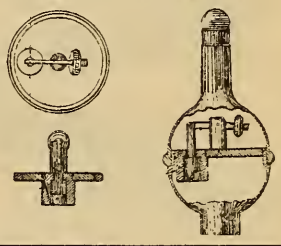
120,880 WILLARD C. JAMES,
MUSIC-STANDS.



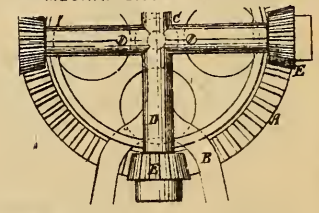
120,881 JOHN JOHNSON,
SPRING-BEDS.



120,882 WILLIAM JONES,
GAS-BURNER REGULATORS.



120,883 WILLIAM F. JONES,
MECHANICAL MOVEMENTS.



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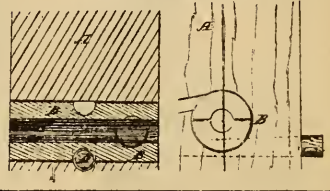

ELLERY CHANNING LEWIS,
HONEY-BOXES FOR BEE-HIVES.
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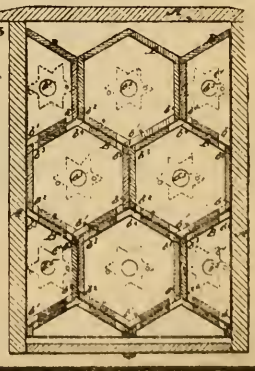

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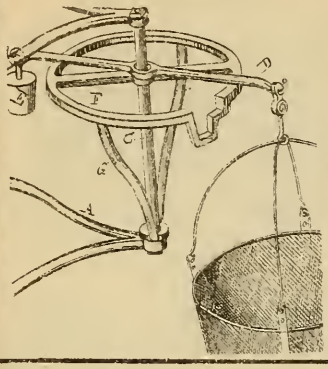
DISH-WASHERS.



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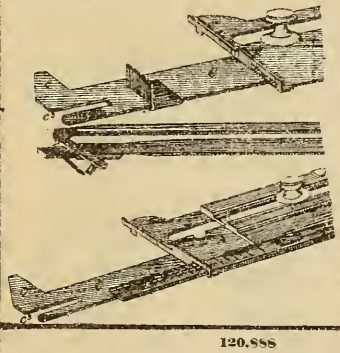

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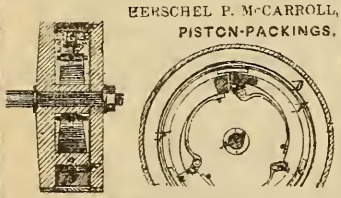
PISTON-PACKINGS.



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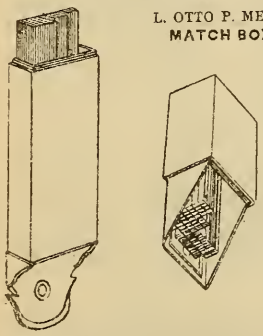
L. OTTO P. MEYER,
MATCH BOXES.



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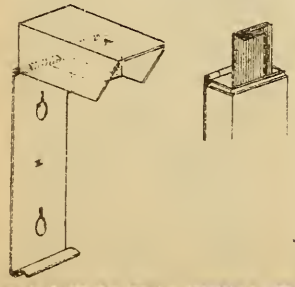

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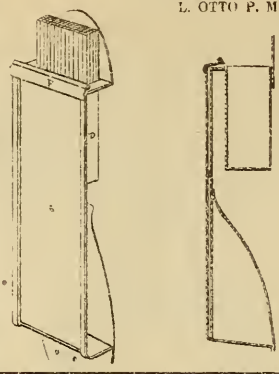
L. OTTO P. MEYER



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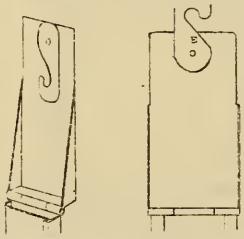
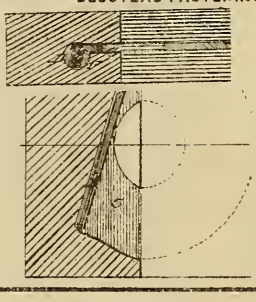


120,893 THOMAS W. MOORE.
BEDSTEAD-FASTENINGS.



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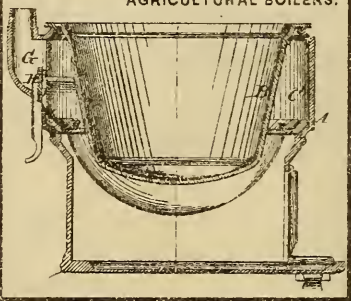
AGRICULTURAL BOILERS.



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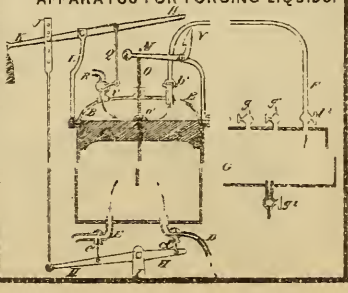
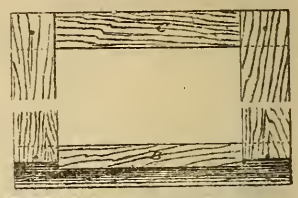
APPARATUS FOR FORCING LIQUIDS.



120,896 JAMES S. PIERSON.
FRAMES FOR DIKING-SHEETS.



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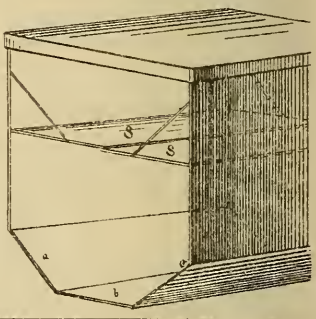
FUR-SET BOXES.



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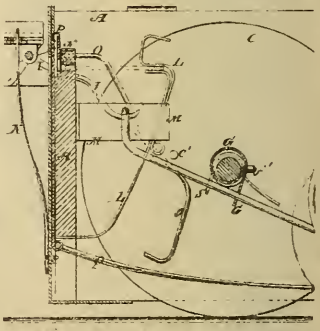
FIRE-KINDLERS.



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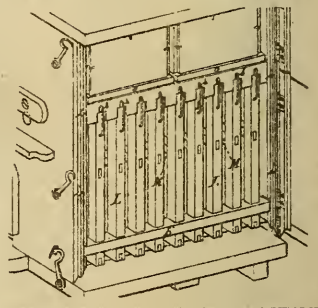

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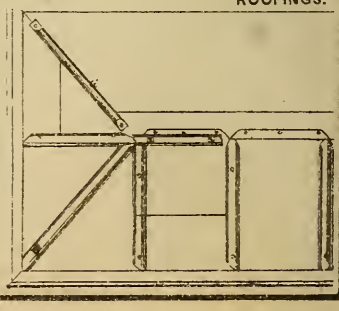
ROOFINGS.



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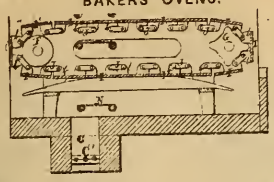

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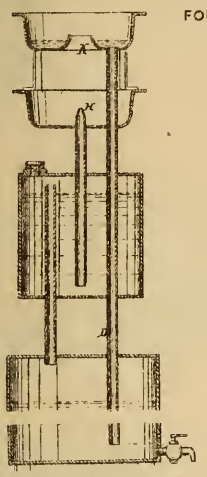

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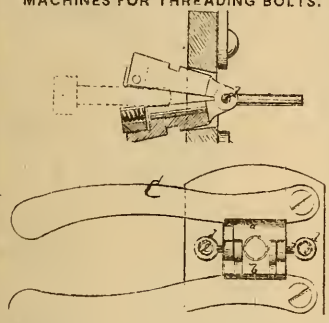

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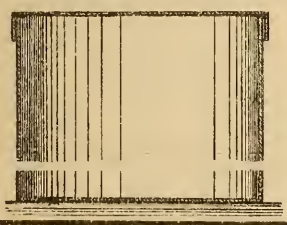

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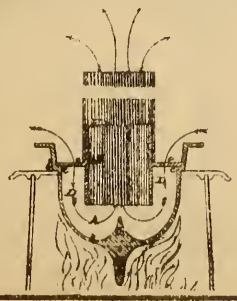

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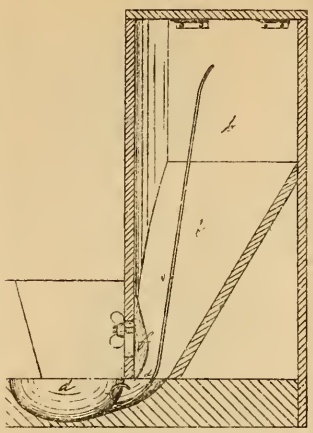

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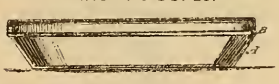

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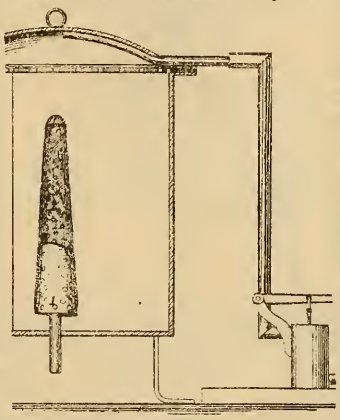

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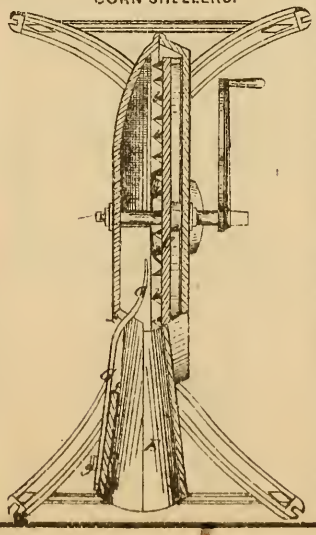

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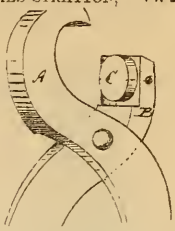

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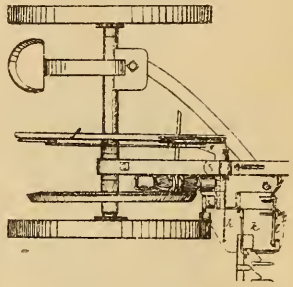
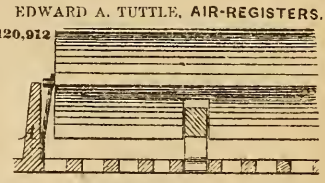


EDWARD A. TUTTLE, AIR-REGISTERS. 120,912



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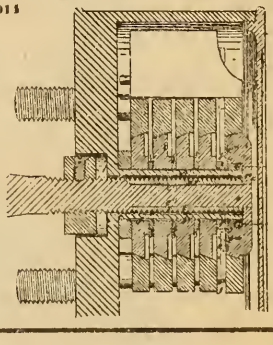
AARON VAN CAMP, ASPHALTIC AND CRUSHED-ROCK PAVEMENTS. 120,914



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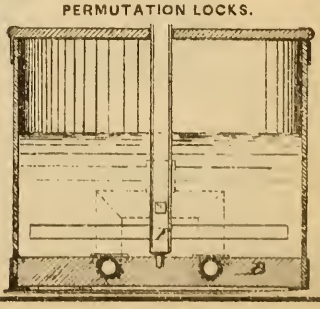

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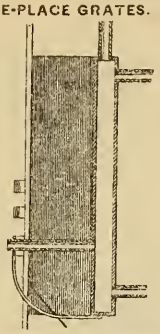

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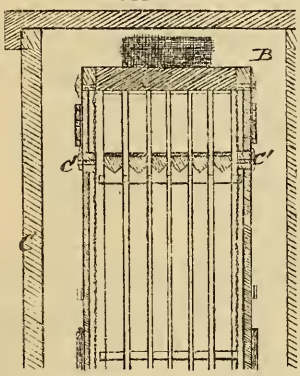

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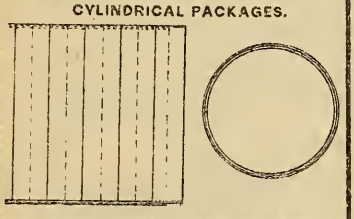
DENTISTS' AND BARBERS' CHAIRS.

120,920 HENDERSON WILLARD,
CYLINDRICAL PACKAGES.



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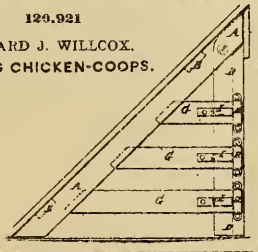
EDWARD J. WILLCOX,
FOLDING CHICKEN-COOPS.



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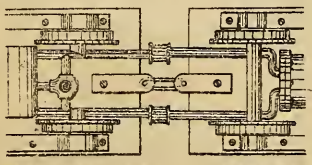
VACUUM-BRAKES FOR RAILWAY CARS.



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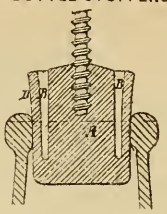
BOTTLE-STOPPERS.



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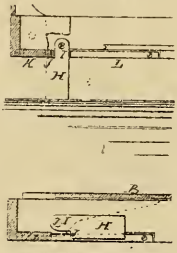
FOLDING-BEDS.



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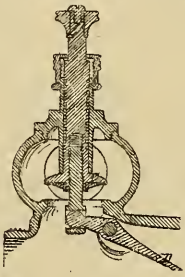
AUTOMATIC RELIEF-VALVES.



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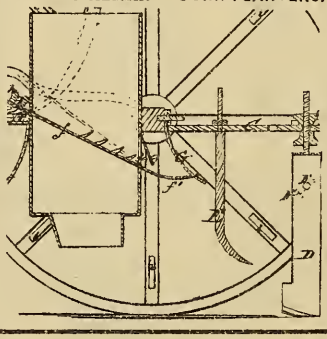
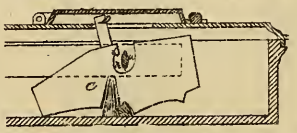
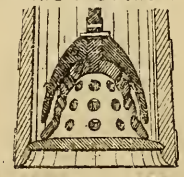
DAVID ALTMAN. CORN-PLANTERS.



120,927 HIRAM ANDRES,
ADJUSTABLE WEIGHTS FOR SCALES.



120,928 EZRA J. ASHTON,
Churn-Dashers.



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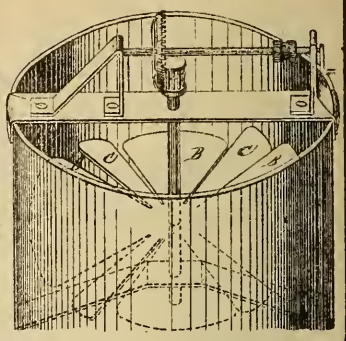
BLOWERS.



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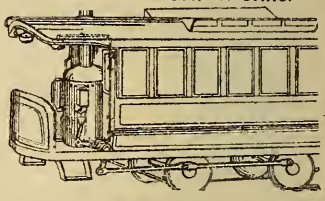
ENGINES FOR STREET-CARS.



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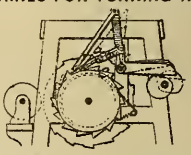
MACHINES FOR TURNING HUBS.



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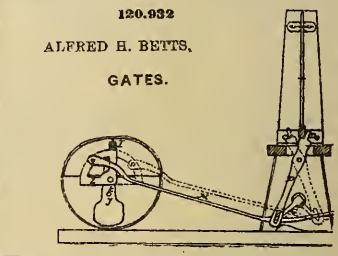
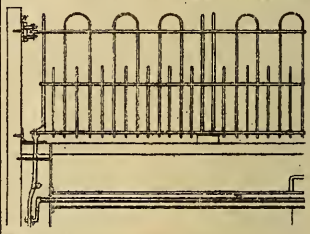
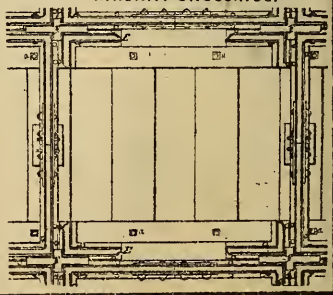
ALFRED H. BETTS,
GATES.

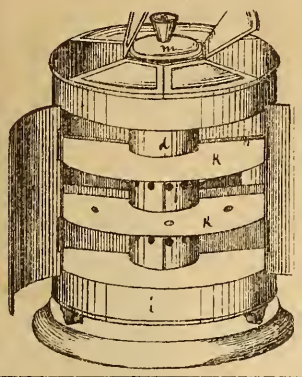




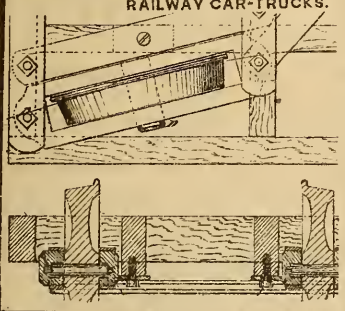
120,933 GEORGE W. BILLINGS,
RAILWAY CROSSINGS.



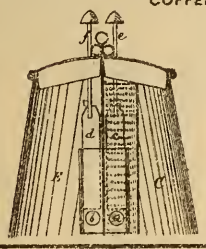
120,934 WILLIAM BOGK, REFRIGERATORS.



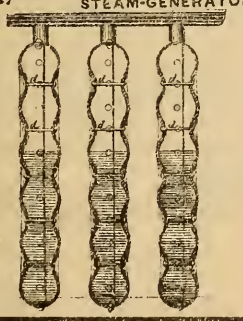
120,935 BROWN, AND BELL. RAILWAY CAR-TRUCKS.



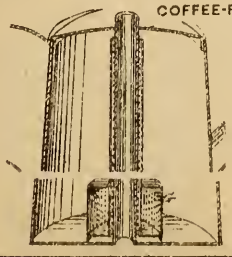
120,936 BROWN AND BLAISDELL. COFFEE-POTS.



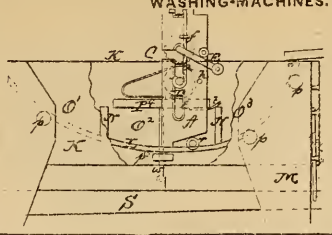
120,937 WILLIAM BYERS, STEAM-GENERATORS.



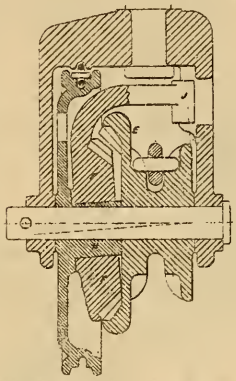
120,938 CAWTHON AND TATOM. COFFEE-POTS.



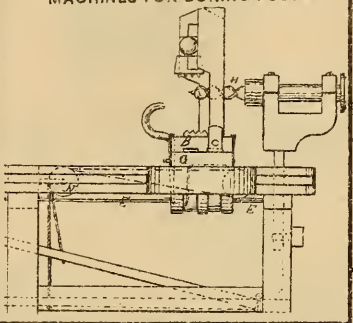
120,939 JOHN RANDOLPH CAZIER. WASHING-MACHINES.



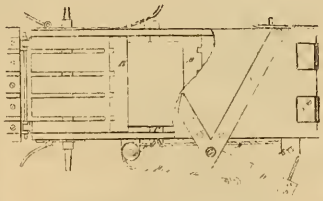
120,940 HENRY CHERRY, PULLEY-BLOCKS.



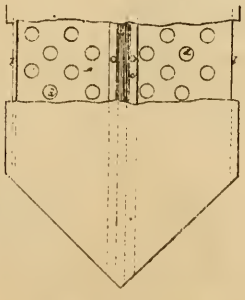
120,941 CLINE AND WEAVER. MACHINES FOR BORING POSTS.



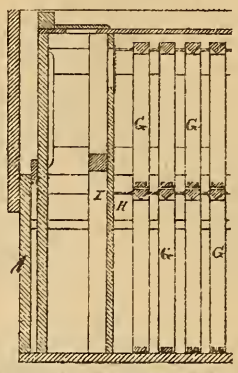
120,942 THOMAS J. CORNING. BALING-PRESSES.



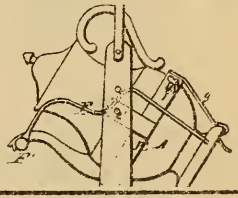
120,943 JOHN P. CULVER. CORES FOR DIKES.



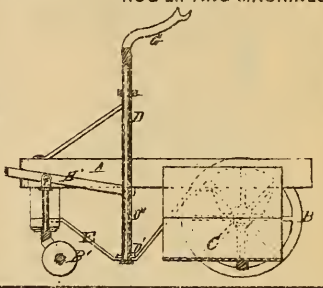
120,944 SAMUEL CUPLIN. BEE-HIVES.



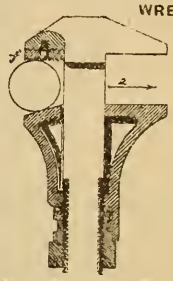
120,945 PHILIP DAVID TEA AND COFFEE-POT STANDS.



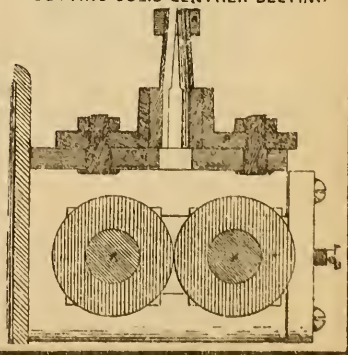
120,946 JOSEPH DAGLEY, HOG-LIFTING MACHINES.



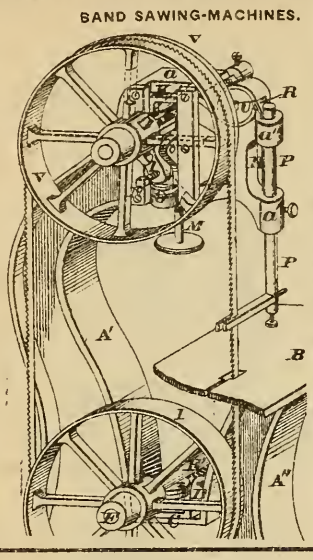
120,947 AUGUSTUS BALL DAVIS. WRENCHES.



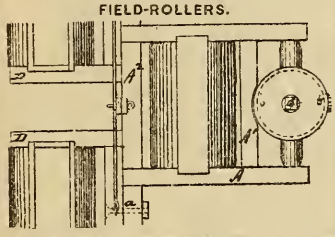
120,948 DICKERSON AND WARREN. CUTTING SOLID LEATHER BELTING



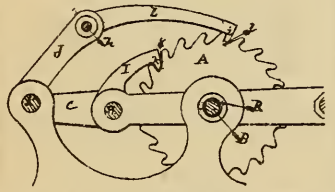
120,949 DOANE AND McKEE.
BAND SAWING-MACHINES.



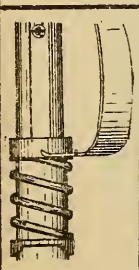
120,950 GEORGE H. DOW.
FIELD-ROLLERS.



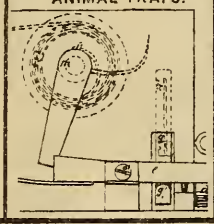
120,951 GEORGE DUERRE,
HOISTING-GEARS.



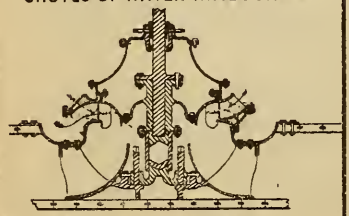
120,952 JOHN EMMERT.
STILTS.



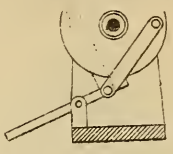
120,953
OSCAR S. EWING,
ANIMAL-TRAPS.



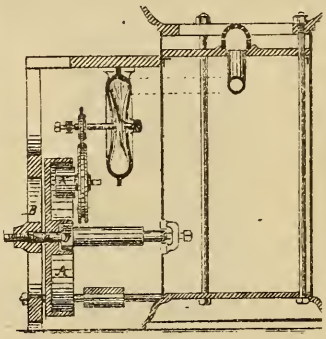
120,954 JOHN T. FANNING,
CHUTES OF WATER-WHEEL CASES.



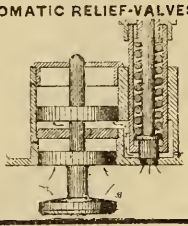
120,955 PETER FERGUSON.
MECHANICAL MOVEMENTS.



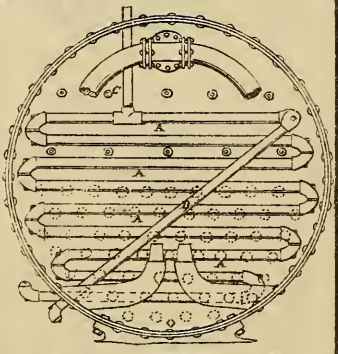
120,957 LEWIS R. FITCH,
DRIVING-GEARS FOR PORTABLE FORGES.



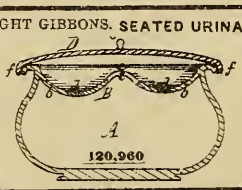
120,958 JAMES GARLAND,
AUTOMATIC RELIEF-VALVES.



120,959 BENJAMIN GARVIN,
STEAM-BOILER FEED-WATER HEATERS.

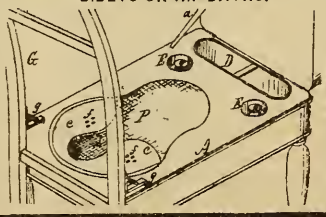


DWIGHT GIBBONS. SEATED URINALS.

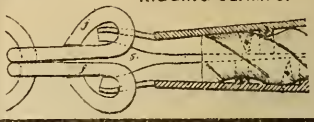


120,960

120,961 DWIGHT GIBBONS,
BIDETS OR HIP-BATHS.

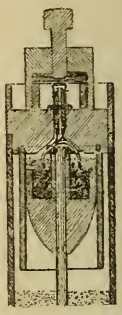


120,962 JAMES H. GILLIS.
RIGGING-CLAMPS.



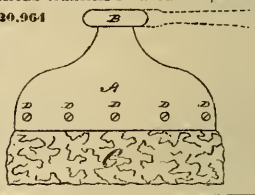
EDWIN GOMEZ.
MODES OF EXPLODING TORPEDOES.

120,963

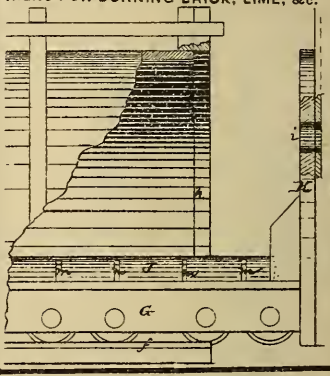


JAMES ALEXANDER GRANT, BRUSHES.

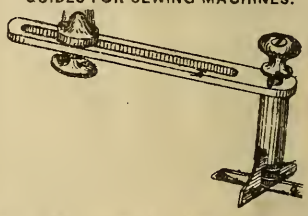
120,964



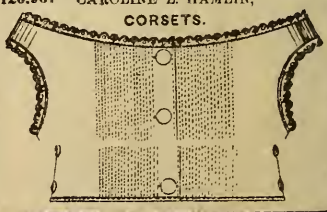
120,965 WILLIAM P. HALL,
KILNS FOR BURNING BRICK, LIME, &c.



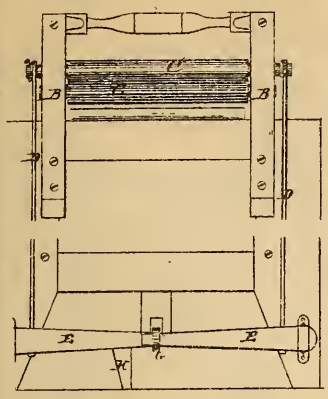
120,966 WILLIAM H. HALLADAY,
GUIDES FOR SEWING-MACHINES.



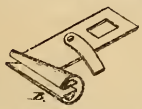
120,967 CAROLINE L. HAMLIN,
CORSETS.



120,968 JAMES W. HAMPTON,
CLOTHES-WRINGERS.

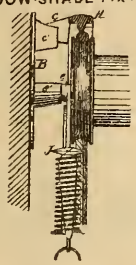


120,969 MILO HARRIS.
BINDING ATTACHMENTS FOR SEWING-MACHINES.

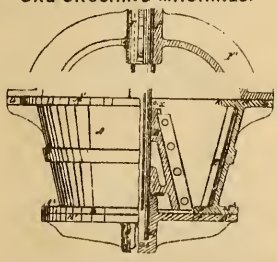


120,970 GEORGE CLIFFE HATCH,
POSTAGE-STAMP HOLDERS.

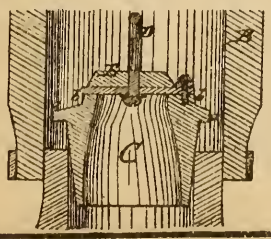
120,971 LOUIS CHRISTIAN HOFFMEISTER.
WINDOW-SHADE FIXTURES.



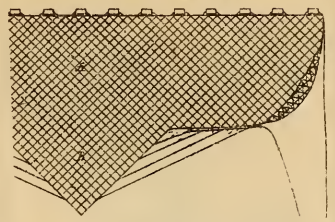
120,972 SAMUEL HUGHES.
ORE-CRUSHING MACHINES.



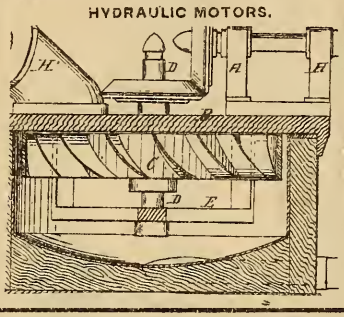
120,973 AARON J. HULL, PUMPS.



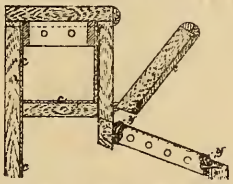
120,974 ROBERT JEFFERY,
FISHING-SEINES.



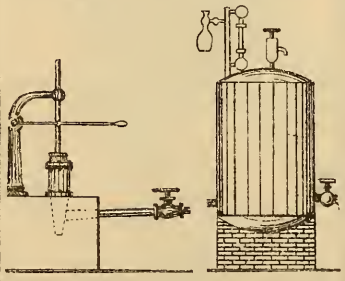
120,975 JOHN HENRY JENNINGS,
HYDRAULIC MOTORS.



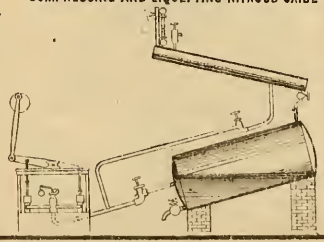
120,976 RALPH S. JENNINGS,
MOTH-PROOF CLOTHING-CHESTS.



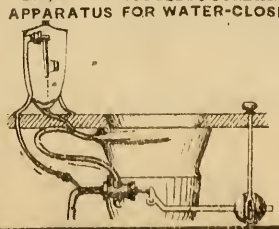
120,977 JOHNSTON AND JOHNSTON,
APPARATUS FOR LIQUEFYING NITROUS OXIDE



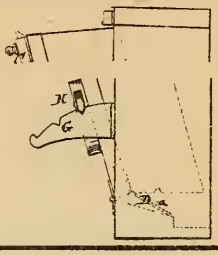
120,978 JOHNSTON AND JOHNSTON,
COMPRESSING AND LIQUEFYING NITROUS OXIDE



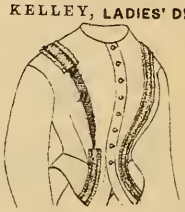
120,979 AUGUSTUS JORDAN,
APPARATUS FOR WATER-CLOSETS.



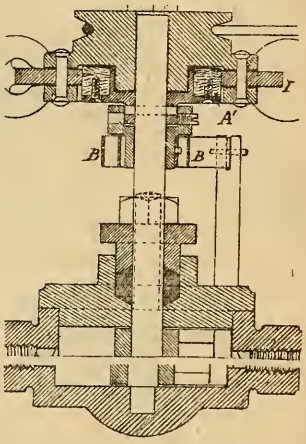
120,980 DANIEL C. JUSTISON.
RAILROAD-CAR VENTILATORS.



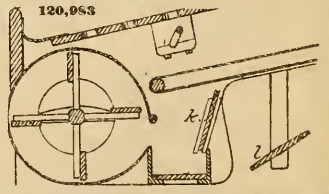
AUSTIN KELLEY, LADIES' DRESSES.
120,981



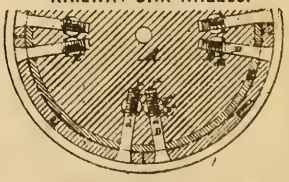
120,982 BENJAMIN S. LAWSON.
ENGINE-GOVERNORS.



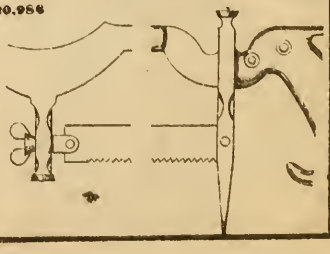
SAMUEL LESSIG, SR. GRAIN-SEPARATOR
120,983



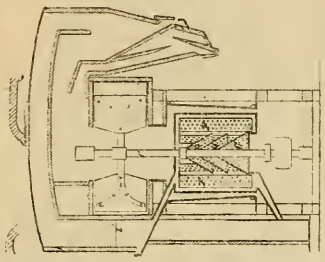
120,985 HENRY C. LOCKWOOD,
RAILWAY CAR-WHEELS.



JOHN MADDY, GRAFTING-TOOLS.
120,986



120,987 JAMES A. MALONEY, SCOURING, AND DECORTICATING-MACHINES.



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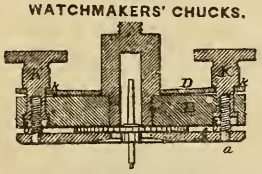
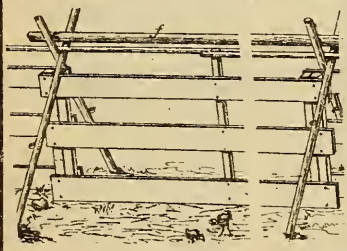
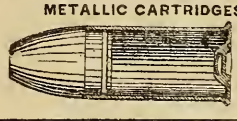


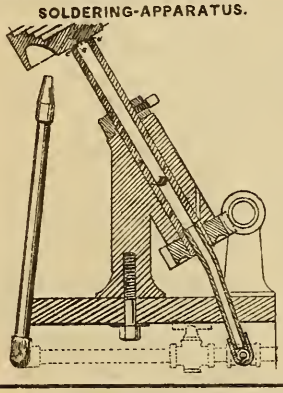
120,989 BENJAMIN F. MEARS. FENCES.



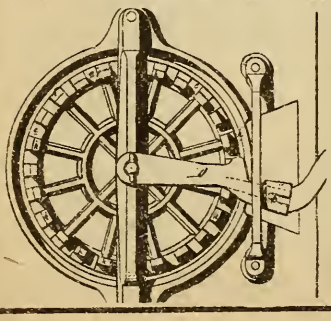
120,990 HENRY METCALFE. METALLIC CARTRIDGES.



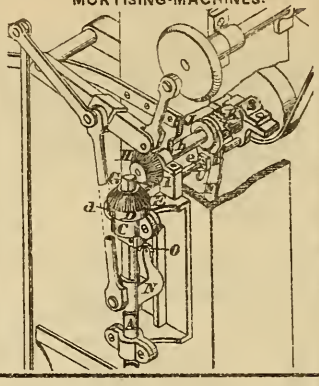
120,991 FREDERICK L. MILLER. SOLDERING-APPARATUS.



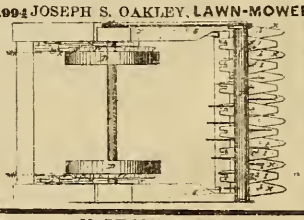
120,992 REES MOSS. STOVE-GRATES.



120,993 MYERS AND SMITH. MORTISING-MACHINES.

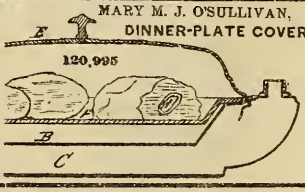


120,994 JOSEPH S. OAKLEY. LAWN-MOWER.

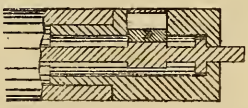


MARY M. J. O'SULLIVAN, DINNER-PLATE COVERS.

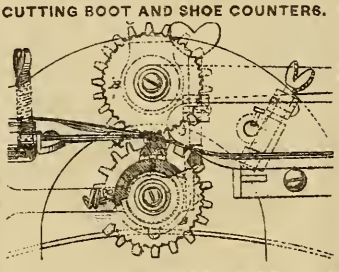
120,995



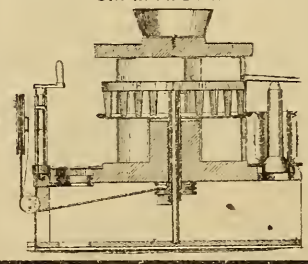
120,997 PHINEAS W. PHILLIPS, CURTAIN-FIXTURES.



120,998 SYLVANUS C. PHINNEY. CUTTING BOOT AND SHOE COUNTERS.

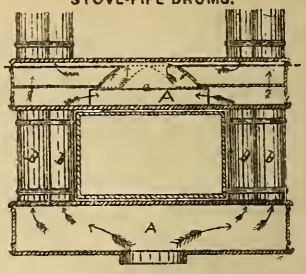


120,999 MASON R. PIERCE, DRAIN-PIPE MACHINES.

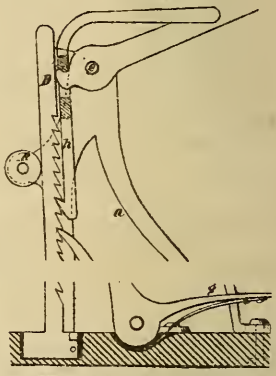


121,000 CLARK M PLATT. BUTTONS.

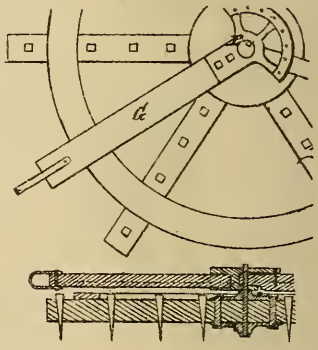
121,001 LEWIN RACINE, STOVE-PIPE DRUMS.



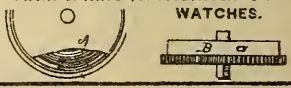
121,002 WILLIAM L. RAYMENT. LIFTING-JACKS.



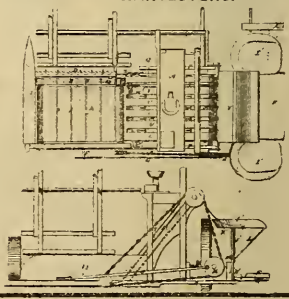
121,003 WILLIAM RENNYSON. HARROWS.



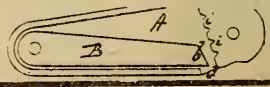
121,004. CHARLES E. RICE, MAIN-SPRING ATTACHMENTS FOR WATCHES.



121,005 ELI B. RICE, OF MADISON, HARVESTERS.

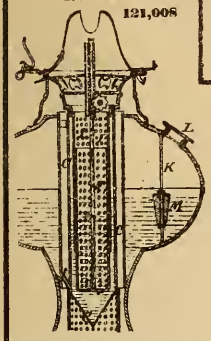


121,006 JOHN D. SATER, LINE-HOLDERS.

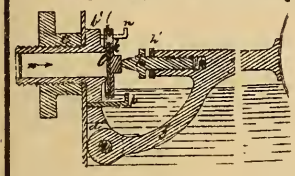


121,007 DAVID SATTLER, SAWS.

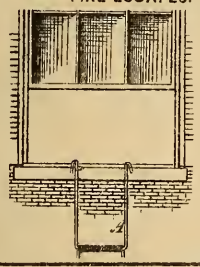
WILLIAM SCARLETT, LAMPS. 121,008



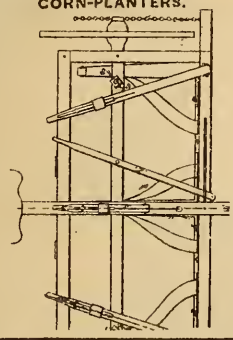
121,010. HERMANN SEYTER, FEED-REGULATORS FOR LIQUIDS.



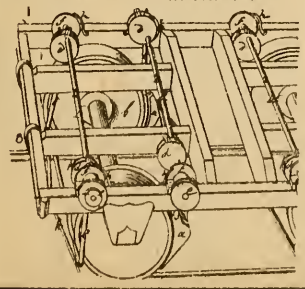
121,011 SHARP AND HOLLENBECK, FIRE-ESCAPES.



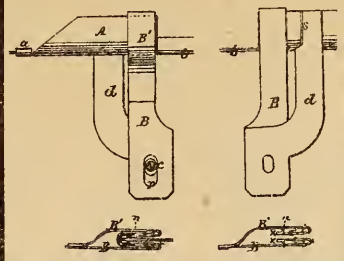
121,012 DAVID J. SHEERS, CORN-PLANTERS.



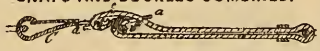
121,013 WILLIAM F. H. SMITH, RAILWAY CAR-BRAKES.



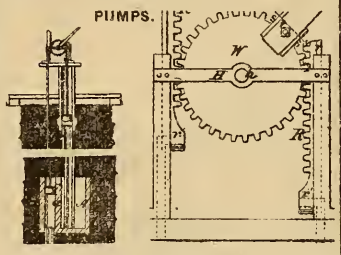
121,014 WILLIAM T. SMITH, BINDING-GUIDES FOR SEWING-MACHINES



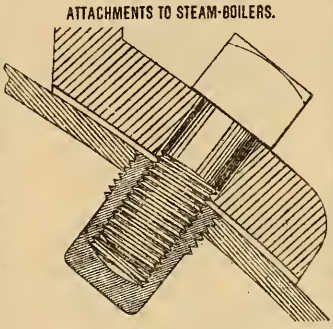
121,015 PHILIP A. SNYDER, SNAPS AND BUCKLES COMBINED.



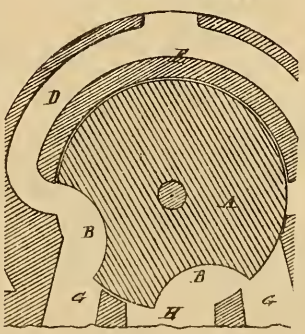
121,016 STECK AND ARNOLD, PUMPS.



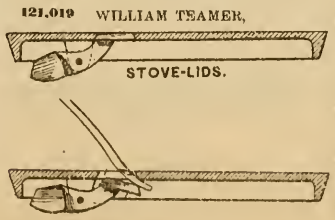
121,017 ALLAN TALBOTT, THIMBLES FOR MAKING ATTACHMENTS TO STEAM-BOILERS.



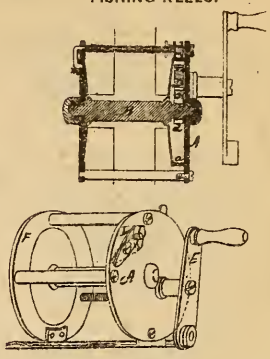
121,018 JULIUS F. TALLANT, ROTARY STEAM-VALVES.



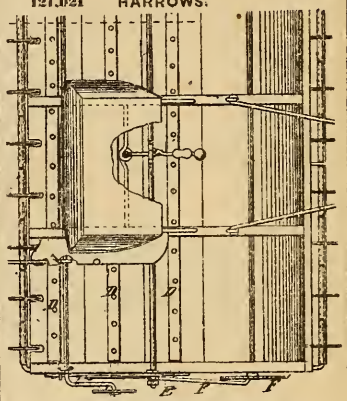
121,019 WILLIAM TEAMER, STOVE-LIDS.



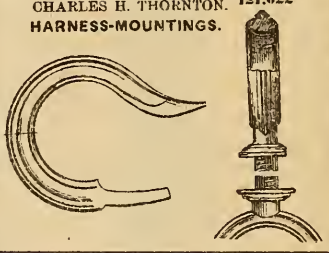
121,020 SILAS B. TERRY, FISHING-REELS.



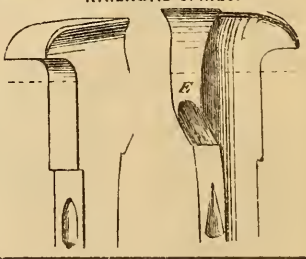
THARP AND THARP, 121,021 HARROWS.



CHARLES H. THORNTON, 121,022 HARNESS-MOUNTINGS.

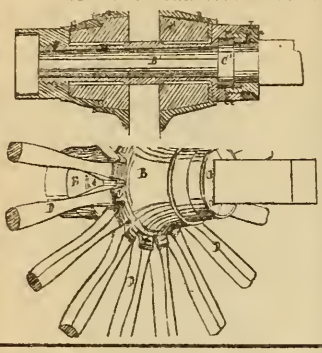


121,023 THEODORE R. TIMBY, RAILROAD SPIKES.

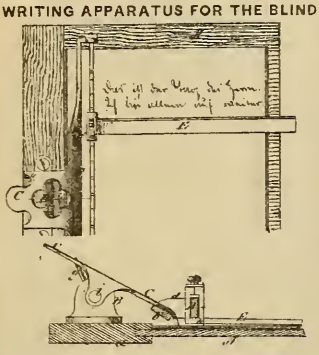


121,024 MORTON TOWER, RAILWAY CAR-BASKETS.

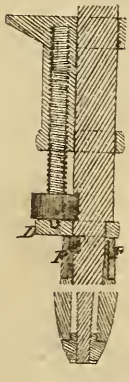
121,025 HOLLAND E. VICK.
HUBS FOR CARRIAGE-WHEELS.



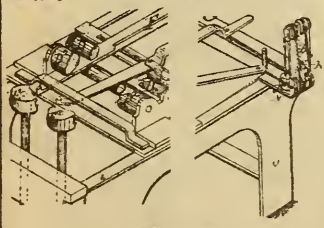
121,026 ARTHUR VON BRIESEN.
WRITING APPARATUS FOR THE BLIND



121,027 WARREN AND. STOCK,
WRENCHES.

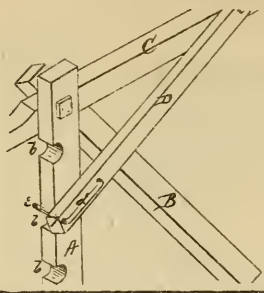


121,028 ANDREW J. WATSON.
PLANING-MACHINES.

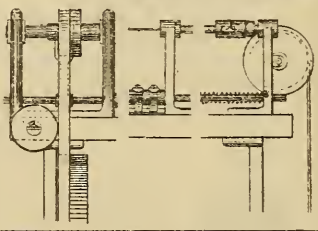


121,029 DAVID H. WATTS.
TILES.

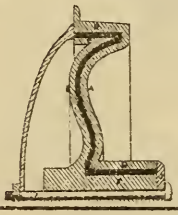
121,030 JAMES WEATHERS.
WAGON-JACKS.



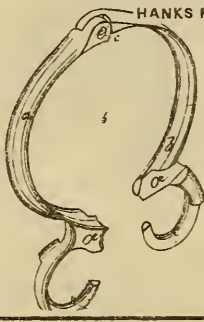
121,031 GEORGE W. WEEKS.
LOOP-BANDING MACHINES.



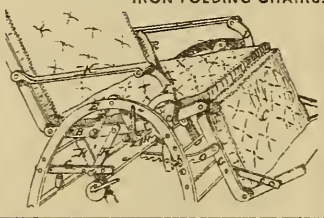
121,032 JAMES M. WHITING,
ELASTIC CAR-WHEELS.



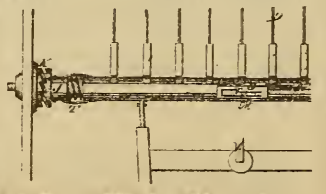
121,033 GEORGE C. WILLIAMS,
HANKS FOR SAILS.



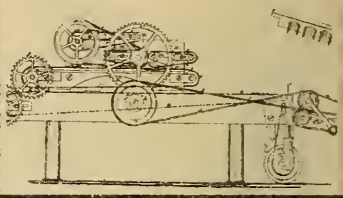
121,034 GEORGE WILSON.
IRON FOLDING-CHAIRS.



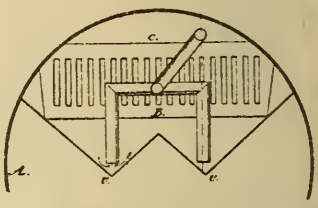
121,035 JAMES E. WISNER,
HORSE HAY-RAKES.



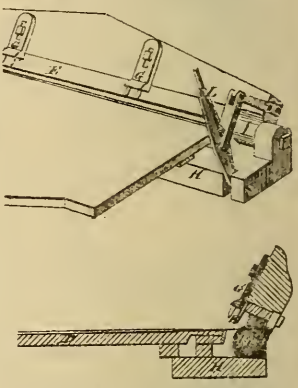
4,634 OLIVER RICE CHASE.
MANUFACTURE OF LOZENGES.



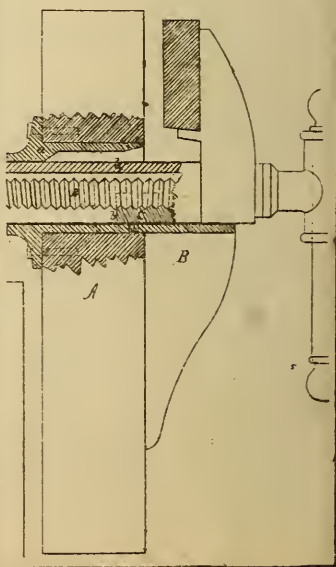
4,635 COLLINS WOOD DEANE,
SEDIMENT-COLLECTORS
FOR STEAM-BOILERS.



4,636 THEODORE E. HARRIS.
SHEARING AND PUNCHING SHINGLE-STRAPS.



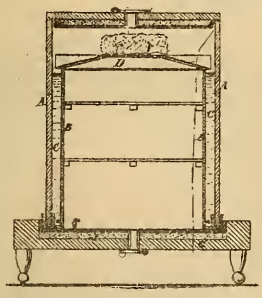
4,637 JOHN SIMPSON,
VISES.



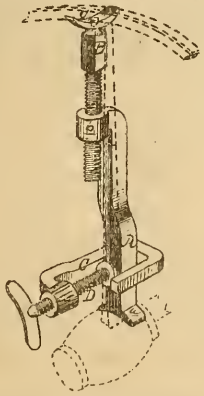
ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
NOVEMBER 21, 1871.

121,036 FRANK H. AIKEN, STEREOTYPES.

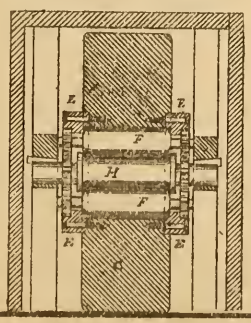
121,037
AUGUST W. ALMQVIST.
REFRIGERATORS.

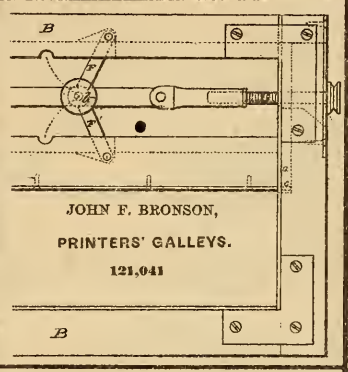


121,039 HIRAM BECKWITH,
DEVICES FOR TIGHTENING LOOSE TIRES.



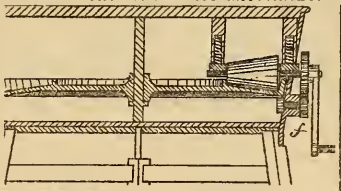
121,040 JOHN D. BEERS,
JOURNAL-BOXES.



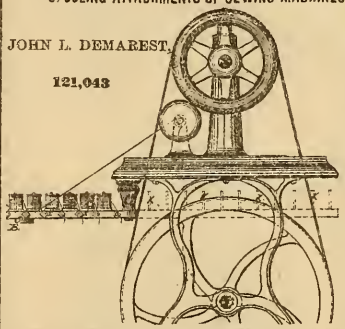


JOHN F. BRONSON,
PRINTERS' GALLEYS.
121,041

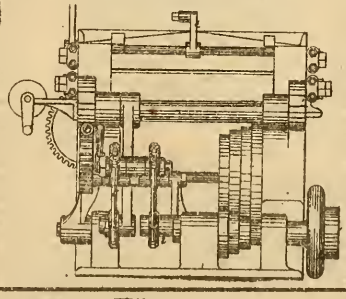
121,042 GEORGE R. CLARKE,
WASHING AND WRINGING MACHINES.



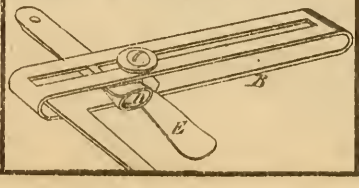
SPOOLING ATTACHMENTS OF SEWING-MACHINES.
JOHN L. DEMAREST,
121,043



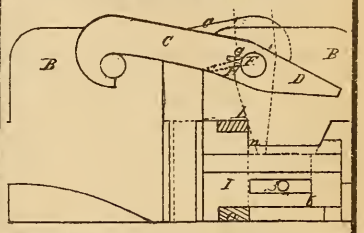
121,045. RUDOLPH EICKEMEYER,
FELTING-MACHINES.



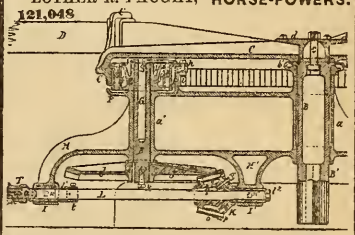
121,046 HENRY A. ELLIS,
HEMMERS FOR SEWING-MACHINES.



121,047 JOHN M. ENOS AND JOAB ENOS,
CAR-COUPLINGS.



LUTHER R. FAUGHT, HORSE-POWERS.
121,048



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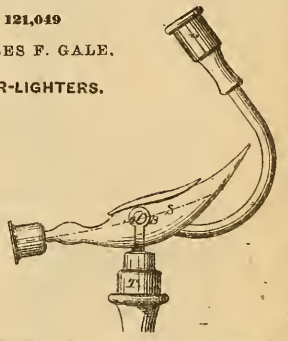
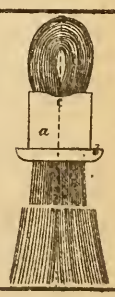
MOSES F. GALE.
CIGAR-LIGHTERS.

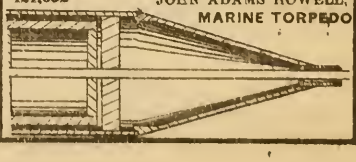


121,050
HAYWARD A. HARVEY.
BRUSHES.

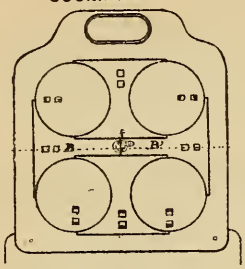


121,051
JOHN B. HEVERLING,
CAR-COUPLINGS.

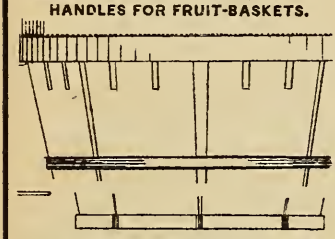
121,052 JOHN ADAMS HOWELL,
MARINE TORPEDO



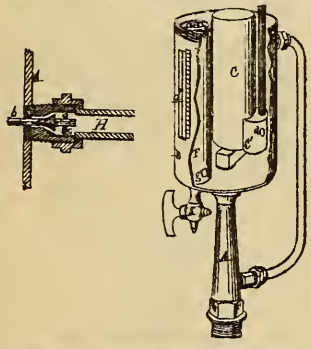
121,053 SEYMOUR KETCHUM.
COOKING-STOVES.



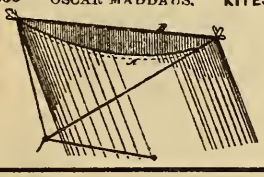
121,054 JOSEPH KNAPP.
HANDLES FOR FRUIT-BASKETS.



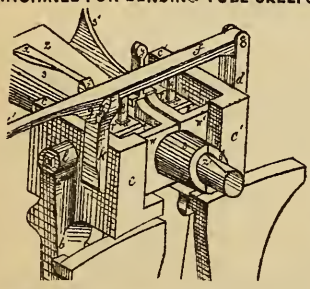
121,055 CHARLES LYNCH.
LUBRICATORS FOR STEAM-ENGINES.



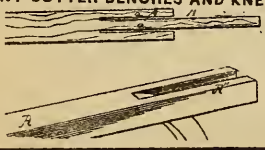
121,056 OSCAR MADDAUS. KITES.



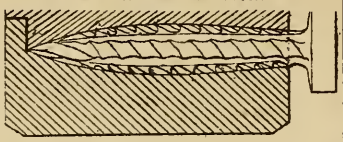
121,057 GEORGE MATHESON.
MACHINES FOR BENDING TUBE-SKELPS.



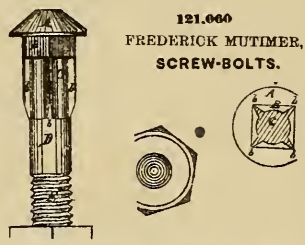
121,058 EDWARD MILNER,
BENT CUTTER-BENCHES AND KNEES.



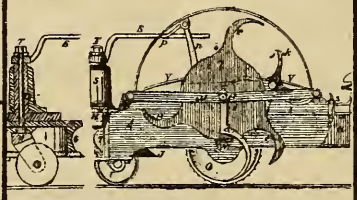
121,059, MOELLER AND BRANDT.
TOOLS FOR BORING CIGAR-MOLDS.



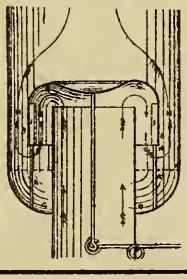
121,060
FREDERICK MUTIMER,
SCREW-BOLTS.



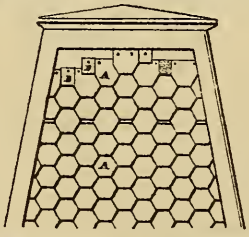
121,061 PETER NICOLA. HARVESTERS.



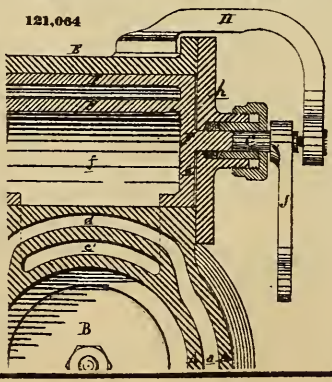
121,062 THOMAS B. PHOEBUS.
SMOKE-STACKS FOR ENGINES.



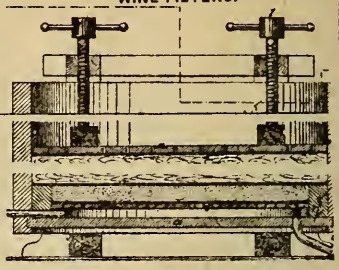
121,063 OSBORNE J. PIERCE, ROOFINGS.



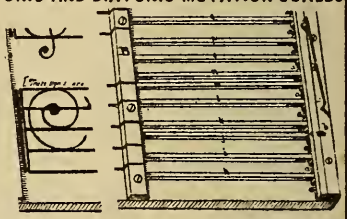
EDWARD H. REES, STEAM-ENGINES.
121,064



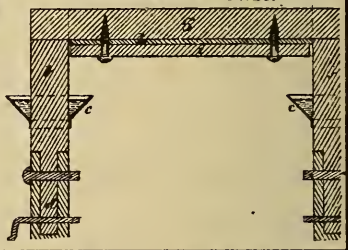
121,065 AUGUST F. SCHMIDT.
WINE-FILTERS.



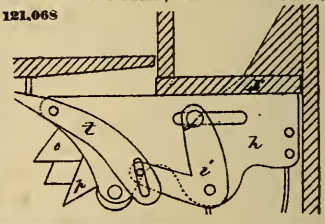
121,066 JAMES H. SCOTT.
TONIC AND DIATONIC MUTATION SCALES



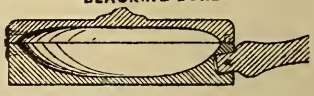
121,067 LEWIS THAYER STETSON,
PERCHES FOR FOWLS.



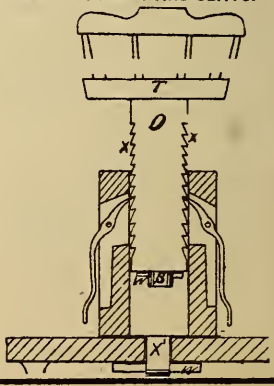
ROBERT R. STRAIN, EARTH-CLOSETS.
121,068



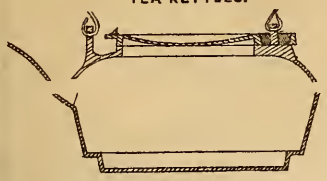
121,069 ALBERT M. UTLEY,
BLACKING-BOXES.



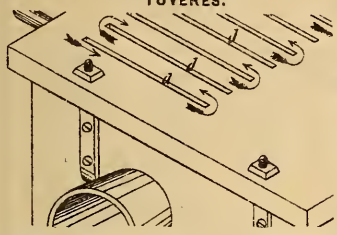
121,070 WILEY WATSON.
SCHOOL-DESKS AND SEATS.



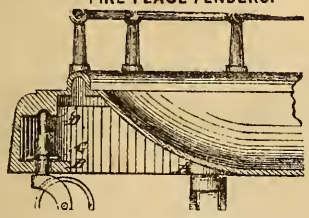
121,071 ABRAHAM F. WOLF, TEA-KETTLES.



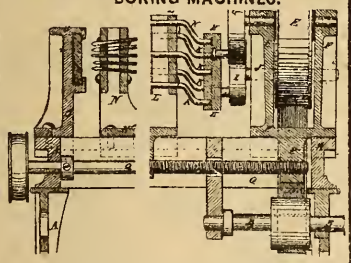
121,072 ALFRED M. WORTHING. TUYERES.



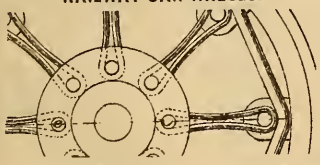
121,073 CHARLES C. ALGEO. FIRE-PLACE FENDERS.



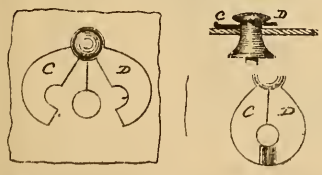
121,074 ALLEN AND RITCHEL BORING-MACHINES.



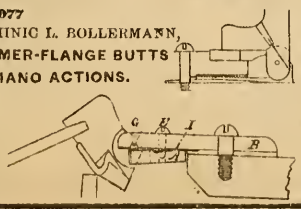
121,075 ALBERT G. BARRETT, RAILWAY CAR-WHEELS.



121,076 HENRY M. BIDWELL, CARRIAGE-CURTAIN FASTENERS.

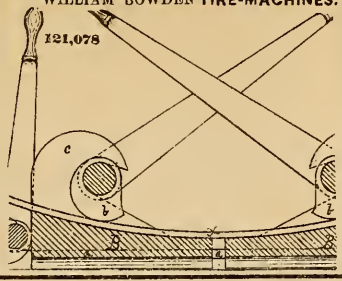


121,077 DOMINIC L. BOLLERMANN, HAMMER-FLANGE BUTTS OF PIANO ACTIONS.

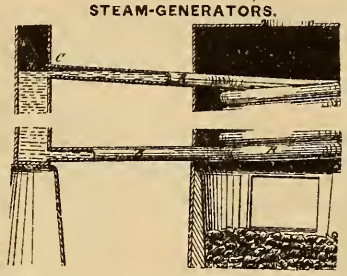


WILLIAM BOWDEN TIRE-MACHINES.

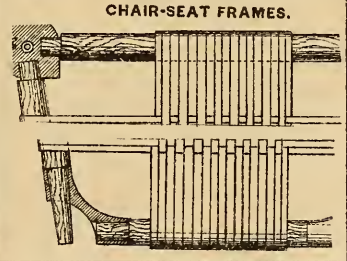
121,078



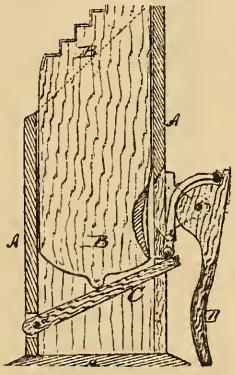
121,079 ALVAN D. BROCK, STEAM-GENERATORS.



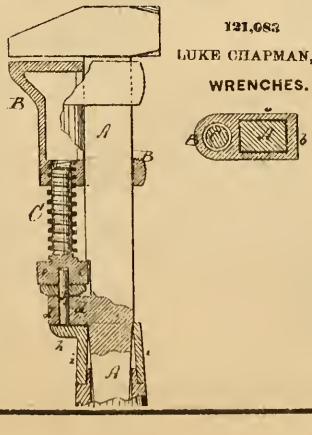
121,080 HENRY BUCHTER, CHAIR-SEAT FRAMES.



121,081 WALTER S. BURGIN, LIFTING-JACKS.

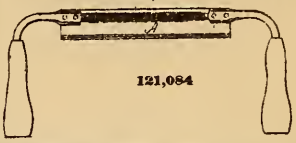


121,083 LUKE CHAPMAN, WRENCHES.



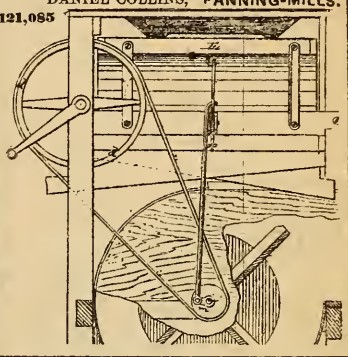
THOMAS M. CLARKE, DRAWING-KNIVES.

121,084

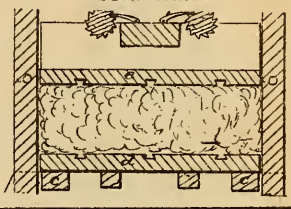


DANIEL COLLINS, FANNING-MILLS.

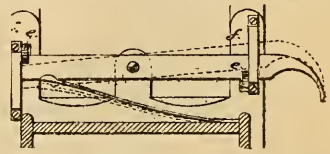
121,085



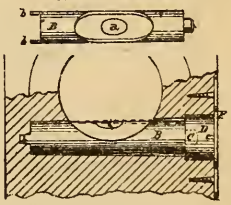
121,086 GEORGE L. COLLINS, DUMP-CARTS.



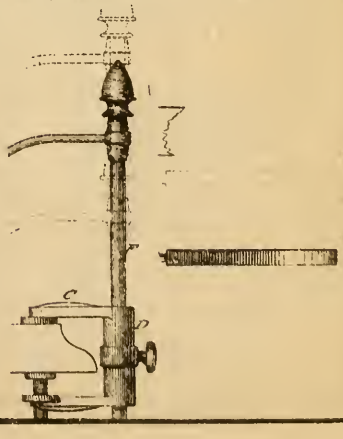
121,087 JOEL S. COOK, BALING-PRESSES



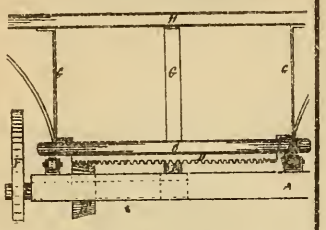
121,088 LEONARD LEROY DAVIS. SPIRIT-LEVELS.



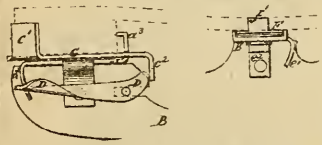
121,089 ROBERT S. DENNISON BRACKETS FOR SEWING-MACHINES.



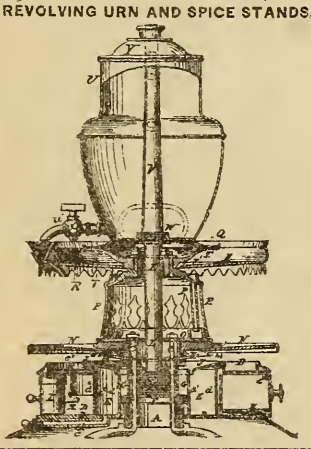
121,090 PATRICK M. DONOHOO,
TABLES FOR HARVESTERS.



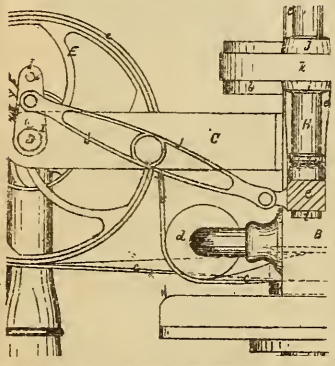
121,092 EDWARD LAWSON FENERTY,
SKATE-FASTENINGS.



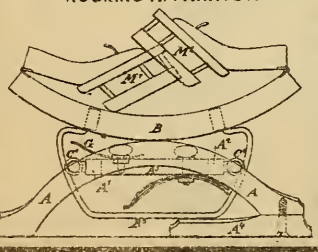
121,091 WILLIAM JOHN EVANS,
REVOLVING URN AND SPICE STANDS.



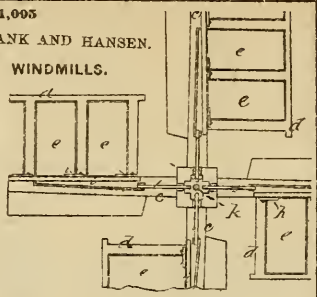
121,093 THOMAS FLESHER,
BORING AND MORTISING BLIND-SLATS.



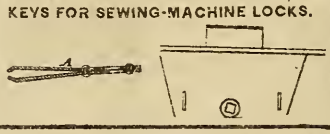
121,094 JOHN N. FOWLER,
ROCKING APPARATUS.



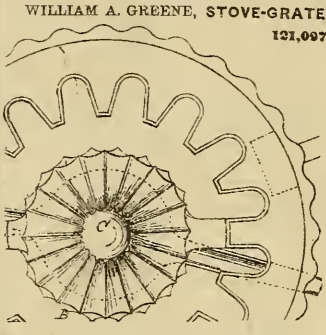
121,095 FRANK AND HANSEN.
WINDMILLS.



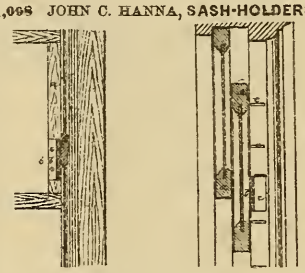
121,096 EDWARD L. GAYLORD,
KEYS FOR SEWING-MACHINE LOCKS.



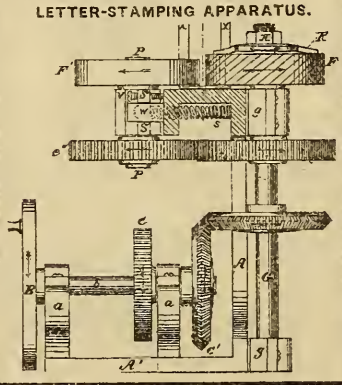
WILLIAM A. GREENE, STOVE-GRATES.
121,097



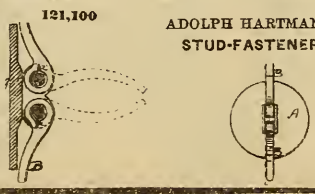
121,098 JOHN C. HANNA, SASH-HOLDERS.



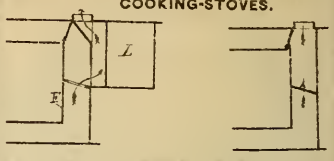
121,099 THOMAS C. HARGRAVE,
LETTER-STAMPING APPARATUS.



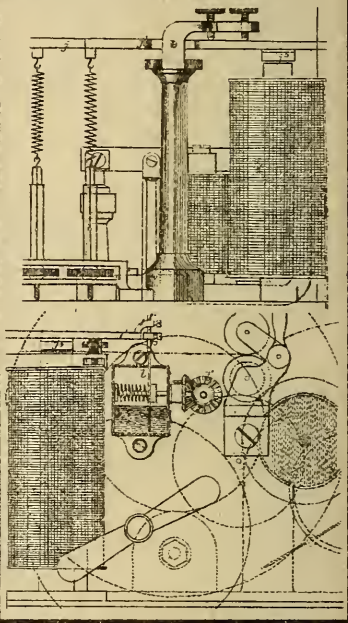
121,100 ADOLPH HARTMANN,
STUD-FASTENERS.



121,101 LEVI HERMANCE,
COOKING-STOVES.

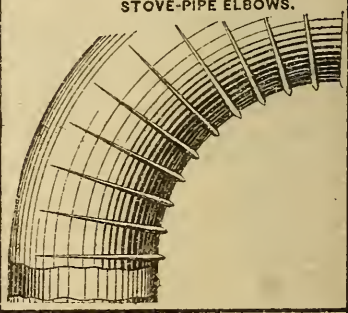


121,102 RICHARD HERRING,
PRINTING-TELEGRAPHS.



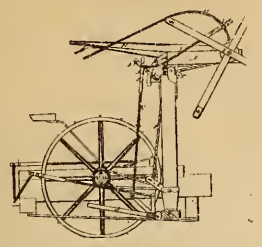
121,103 WILLIAM H. HOLLAND, PISTONS.

121,104 GEORGE W. HOWELL,
STOVE-PIPE ELBOWS.

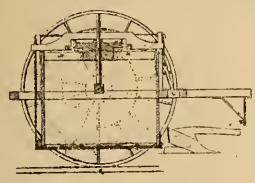


ELISHA HUGHES, SHINGLE-MACHINES.
121,105

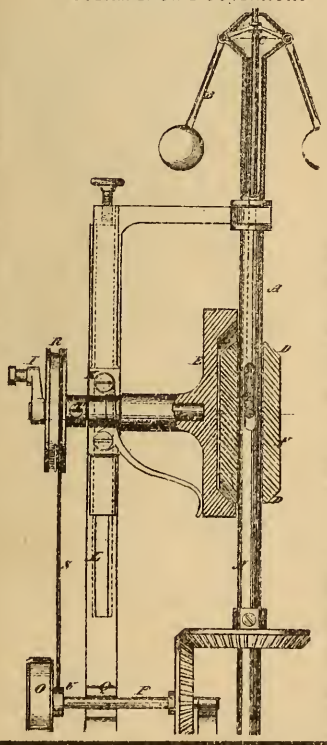
121,107 JOHN H. KELLER,
REELS AND CUT-OFFS FOR HARVESTERS.



121,108 JESSE KING,
EXCAVATING-CARTS.

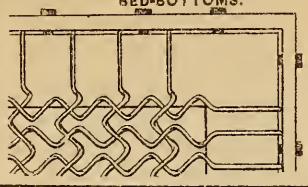


121,109 AARON K. KLINE,
STEAM-ENGINE GOVERNORS.

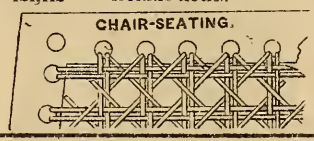


121,110 ADOLPH KLINGENBURG,
MECHANICAL DICE APPARATUS.

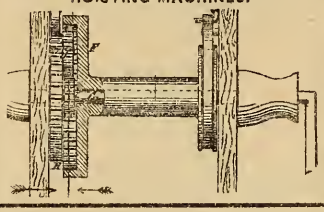
121,111 MORRIS KOHN,
BED-BOTTOMS.



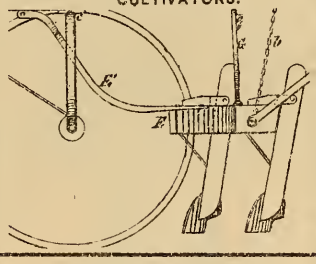
121,112 MORRIS KOHN.
CHAIR-SEATING.



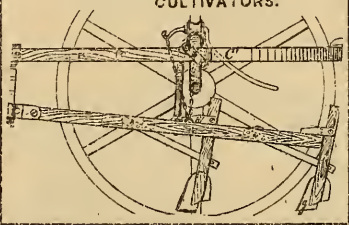
121,113 SAMUEL L. LORD,
HOISTING-MACHINES.



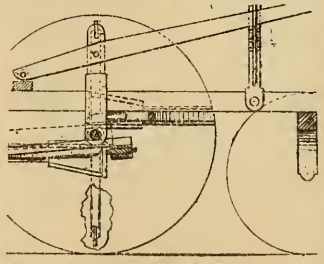
121,114 ABRAM M. MANNY,
CULTIVATORS.



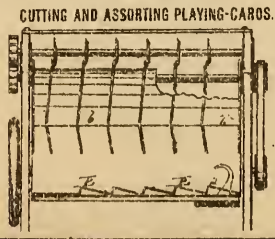
121,115 ABRAM M. MANNY,
CULTIVATORS.



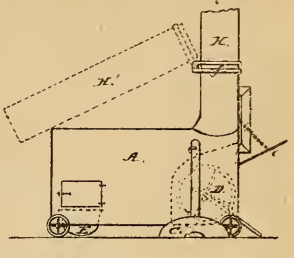
121,116 JEREMIAH MATTHEWS,
CORN-PLANTERS.



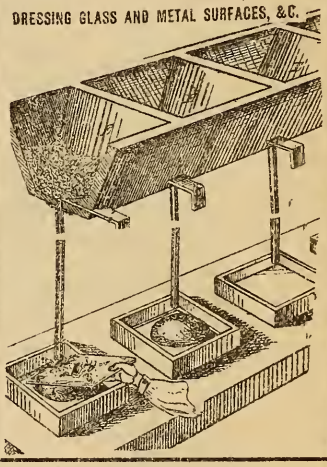
121,117 VICTOR E. MAUGER.
CUTTING AND ASSORTING PLAYING-CARDS.



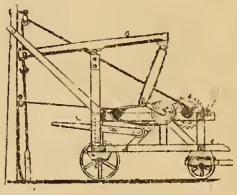
121,118 McKENZIE AND STEBBINS
APPLIANCES FOR PREPARING AND USING THE SAME.



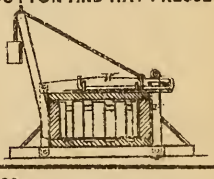
121,119 GEORGE F. MORSE,
DRESSING GLASS AND METAL SURFACES, &C.



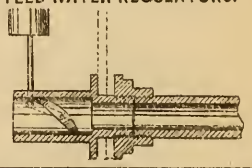
121,120 LYCURGUS NELSON,
ROCK-DRILLING APPARATUS.



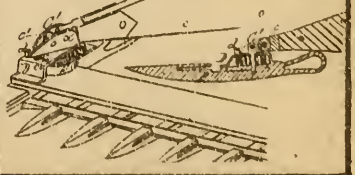
121,121 JOHN DAY NIX,
COTTON AND HAY PRESSES.



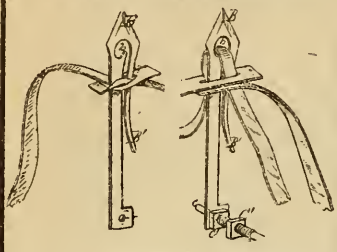
121,122 NICHOLAS NOLAN,
FEED-WATER REGULATORS.



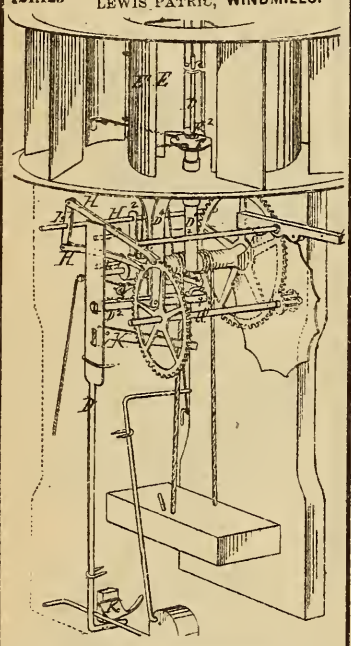
121,123 CHARLES N. OWEN,
CLEARERS FOR HARVESTERS.



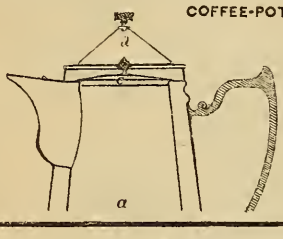
121,121 LEEMAN C. PALMER.
SLITTING AND LOOPING RAGS FOR CARPETS.



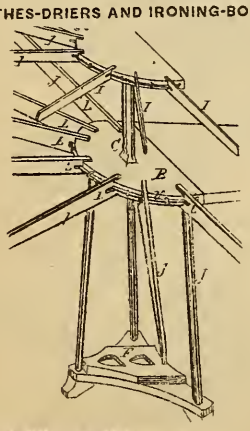
121,125 LEWIS PATRIC, WINDMILLS.



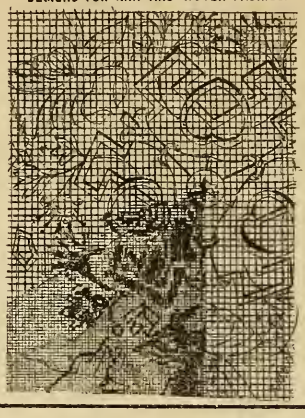
121,126 JAMES WILLARD PATTERSON
COFFEE-POTS.



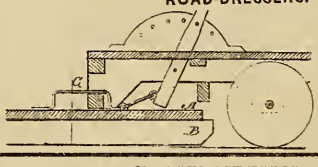
121,127 MARTIN POWER.
CLOTHES-DRIERS AND IRONING-BOARDS.



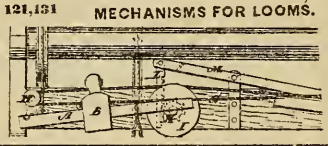
121,128 ISAAC REHN,
DESIGNS FOR KNIT AND WOVEN FABRICS.



121,129 SAMUEL D. REYNOLDS,
ROAD-DRESSERS.

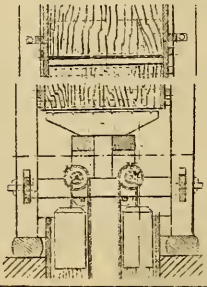


121,131 CHARLES SCHILLING,
MECHANISMS FOR LOOMS.

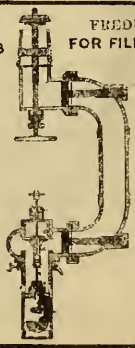


121,132 THOMAS R. SCOTT,
LIFE-PRESERVERS.

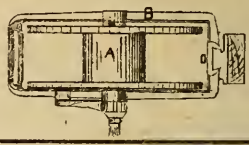
121,133 JOHN J. SIVLEY.
HAY AND COTTON PRESSES.



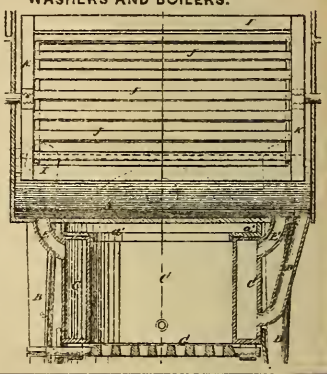
121,134 FREDERICK STITZEL.
DEVICES FOR FILLING BARRELS.



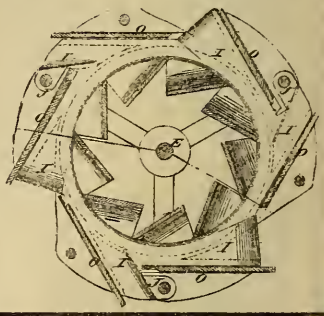
121,135 CHARLES H. STRAFFIN.
CLOTHES-LINE REELS.



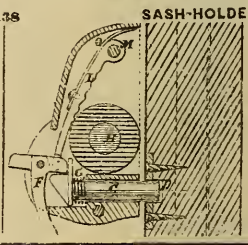
121,136 TAYLOR AND CRISMAN
WASHERS AND BOILERS.



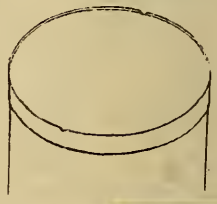
121,137 DE WITT C. TELLER.
WATER-WHEELS.



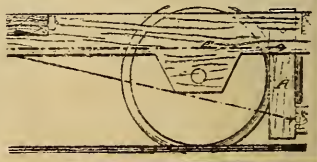
121,138 CHARLES T. TESSIER,
SASH-HOLDERS.



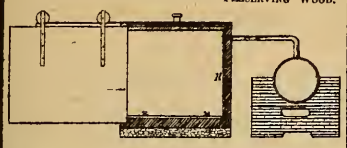
121,139 LANCASTER THOMAS.
SHEET-METAL CANS.



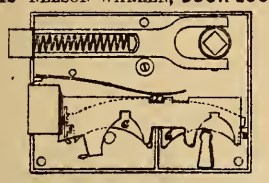
121,140 ISRAEL TOWNSEND.
RAILWAY CAR-BRAKES.



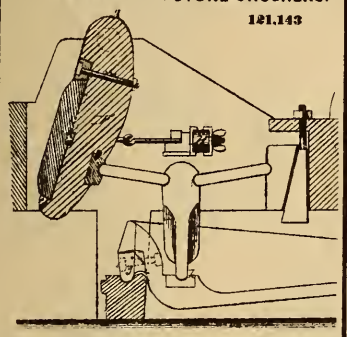
121,141.
James Grover Voorhees.
PRESERVING WOOD.



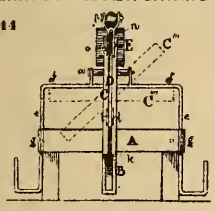
121,142 NELSON WARREN, DOOR-LOCKS.



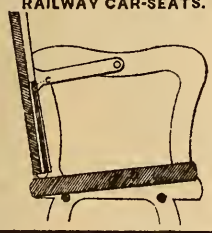
PETER WOOD, STONE-CRUSHERS.
121,143



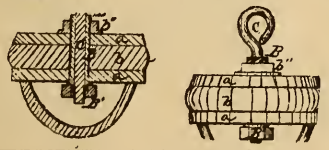
WILLIAM M. WRIGHT, SAWING-MACHINE
121,144



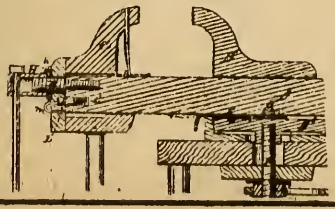
121,145 JAMES M. ALLEN,
RAILWAY CAR-SEATS.



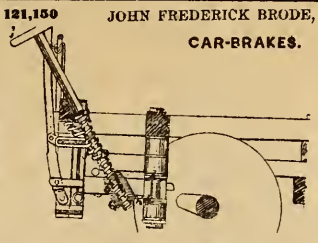
121,146 AARON BAUMAN,
BUCKETS FOR CHAIN-PUMPS.



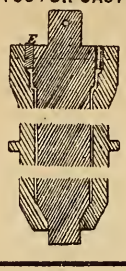
121,119 JONAS D. BECK,
MACHINISTS' VISES.



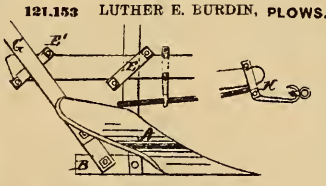
121,150 JOHN FREDERICK BRODE,
CAR-BRAKES.



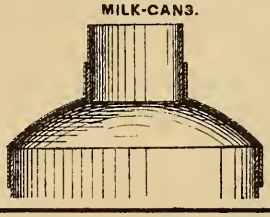
BRODIE, SMITH, AND TYLER,
APPARATUS FOR CASTING PIPES.
121,151



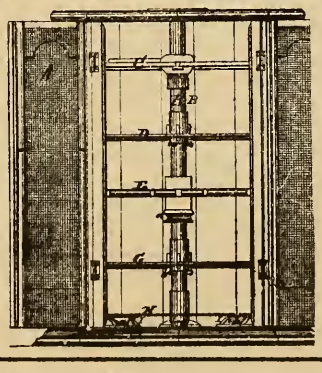
121,153 LUTHER E. BURDIN, PLOWS.



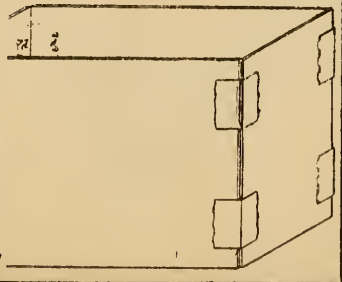
121,154 DURNANT BURNETT,
MILK-CANS.



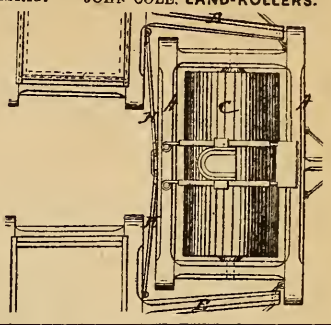
121,155 JAMES W. CASE, MILK-SAFES.



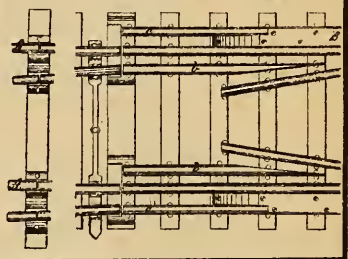
121,156 JOSEPH COHN, BOXES.



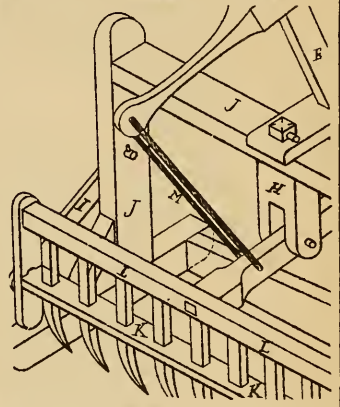
121,157 JOHN COLE, LAND-ROLLERS.



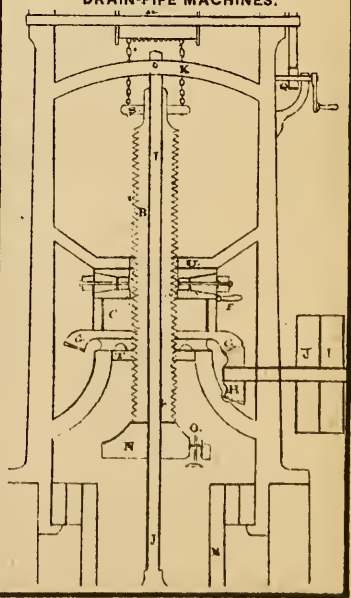
121,158 CHARLES LEE COOKE,
RAILWAY SWITCHES.



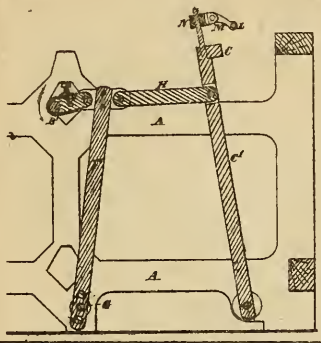
121,159 LUCIAN A. CROCKETT,
HORSE HAY-RAKES.



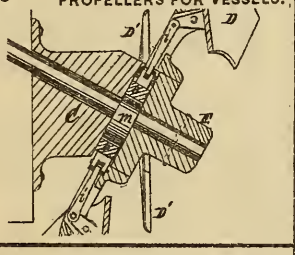
121,160 ALBERT J. DAVIS
DRAIN-PIPE MACHINES.



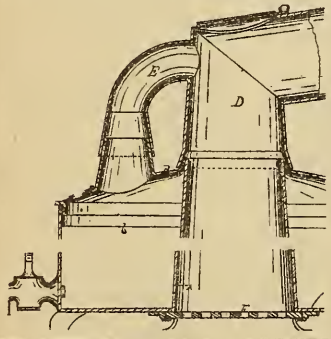
121,161 HENRY G. DAVIS. LOOMS.



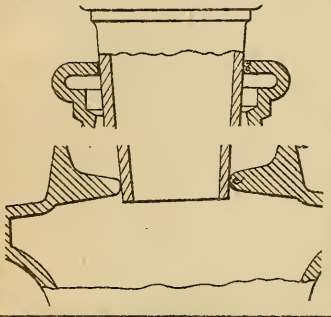
121,163 LEWIS DE LILL, PROPELLERS FOR VESSELS.



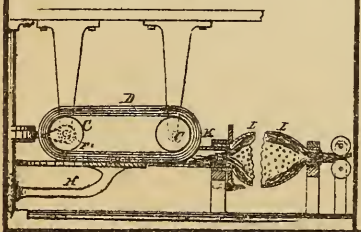
121,164 NICHOLAS GERGEN. COOKING APPARATUS.



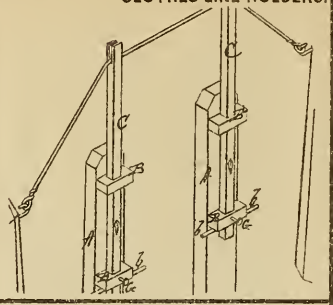
121,165 LYMAN A. COUCH, LAMP-POSTS.



121,166 JAMES KENT GRIFFIN, MANUFACTURE OF ROOFING, FLOORING,

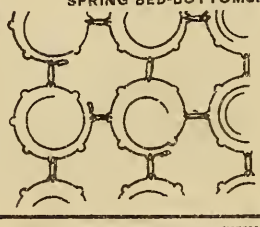


121,167 JOSEPH B. HABECKER, CLOTHES-LINE HOLDERS.

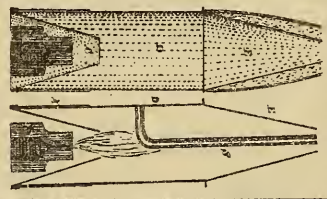


121,168 JOHN W. HANNAN, MILK-CAN HANDLES.

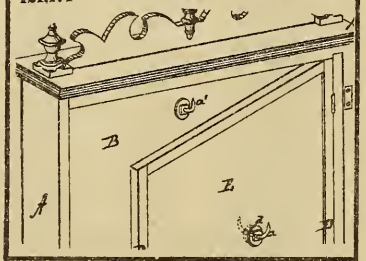
121,169 HANSON HARD, SPRING BED-BOTTOMS.



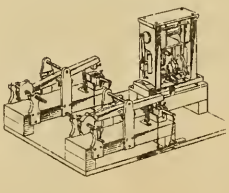
121,170 DAVID GREENE HASKINS, GAS-HEATERS.



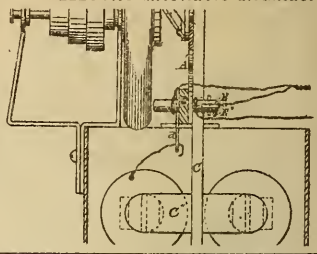
121,171 ISAAC S. HUCKINS, SHOW-CASES FOR WATCHES.



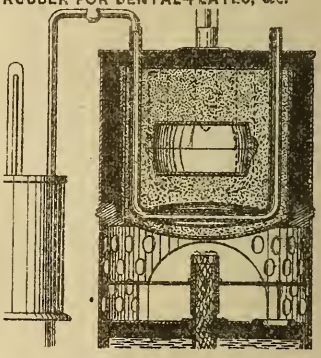
121,172 HENRY H. PARSONS, MACHINES FOR MAKING AXES.



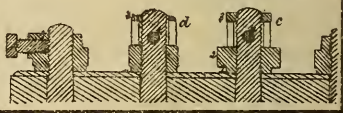
121,173 SOLOMON JONES, ELECTRO-MAGNETIC ENGINES.



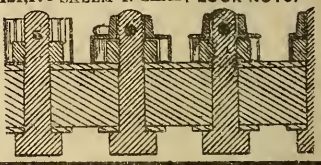
121,174 CYRUS M. KELSEY, RUBBER FOR DENTAL-PLATES, &c.



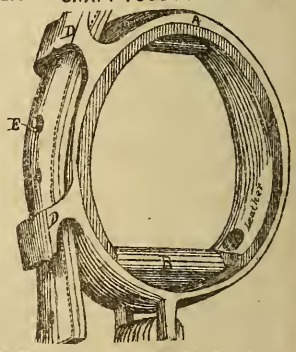
121,175 SALEM T. LAMB, LOCK-NUTS.



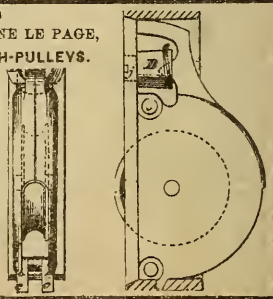
121,176 SALEM T. LAMB, LOCK-NUTS.



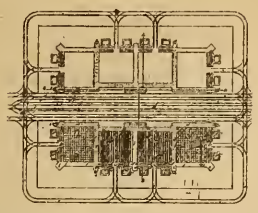
121,177 CHARLES C. LEE. SHAFT-TUGS FOR HARNESS.



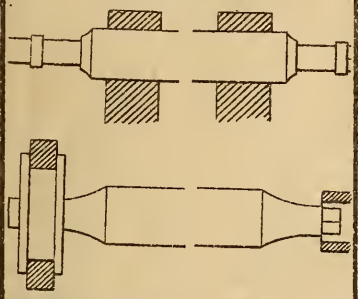
121,178 ANTOINE LE PAGE, SASH-PULLEYS.



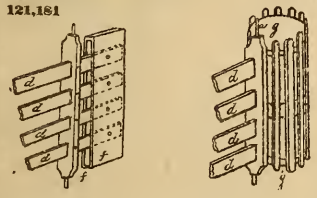
121,179 THALES LINDSLEY, BRICK-KILNS.



121,180 LOBDELL AND MEGAW, FINISHING CHILLED ROLLS.

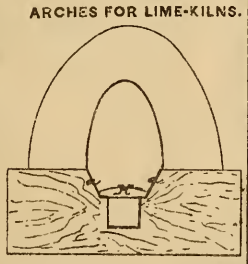


WASHINGTON I. LUDLOW. GATES.
121,181

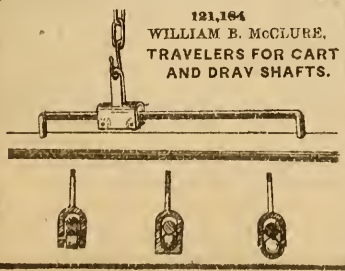


121,182
JOHN HENRY MANN, TROLLING-SPOONS.

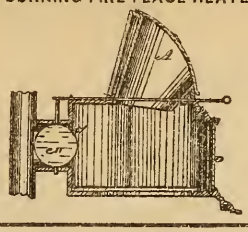
121,183
ALEXANDER McBRIDE, ARCHES FOR LIME-KILNS.



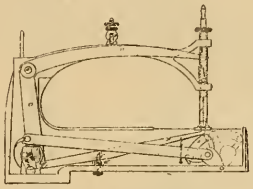
121,184
WILLIAM B. McCLURE, TRAVELERS FOR CART AND DRAV SHAFTS.



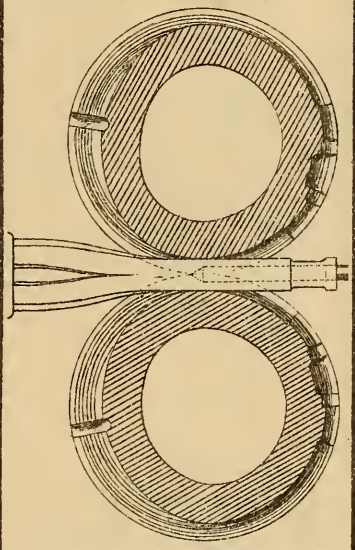
121,185 WILLIAM L. McDOWELL. BASE-BURNING FIRE-PLACE HEATERS.



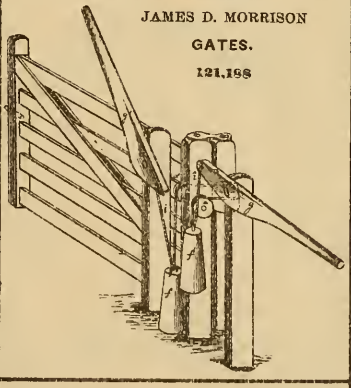
121,186 LINCOLN A. MERRIAM. SEWING-MACHINE



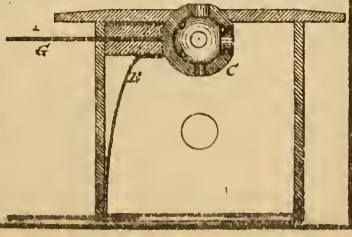
121,187 JAMES MONTGOMERY CONSTRUCTING AXLES.



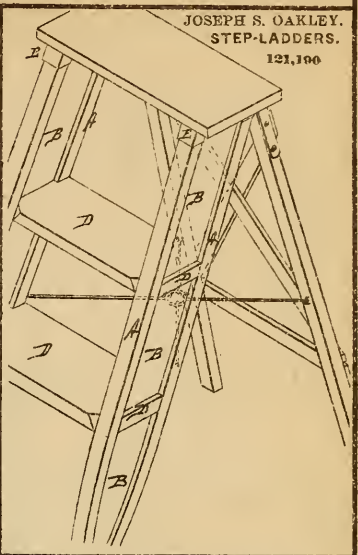
JAMES D. MORRISON GATES.
121,188



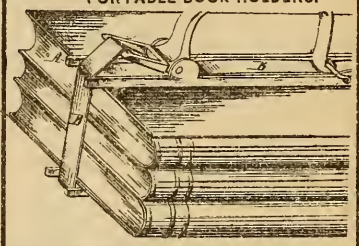
121,189 JOHN NELSON, TUVERE-IRONS.



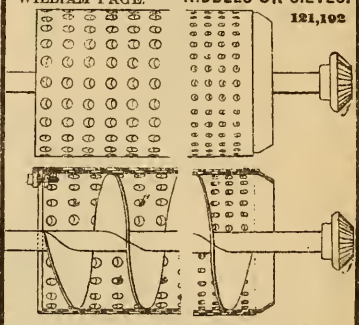
JOSEPH S. OAKLEY. STEP-LADDERS.
121,190



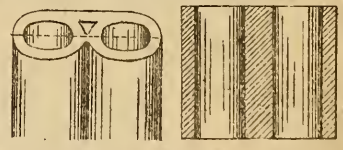
121,191 HERMAN A. OESTERLE. PORTABLE BOOK-HOLDERS.



WILLIAM PAGE. RIDDLES OR SIEVES.
121,192

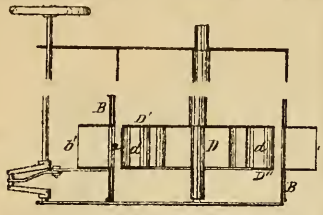


121,193 MASON R. PIERCE. HOLLOW BUILDING-BLOCKS.

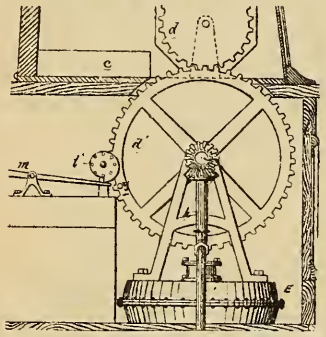


121,194 LOUIS T. PYOTT. COMBINED WISPS AND FLASKS.

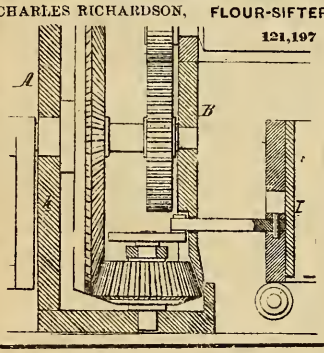
121,195 WILLIS READ. WATER-WHEELS.



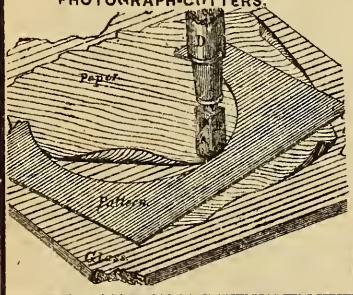
121,196 WILLIAM H. REIFF, ADVERTISING SHOW-CASES.



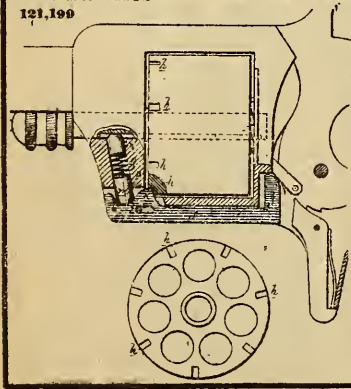
CHARLES RICHARDSON, FLOUR-SIFTER 121,197



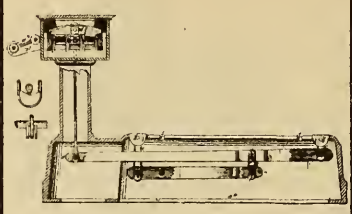
121,198 STILLMAN W. ROBINSON, PHOTOGRAPH-CUTTERS.



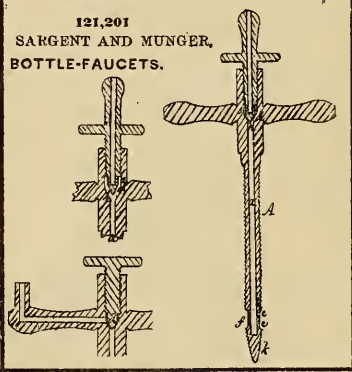
JACOB RUPERTUS REVOLVING FIRE-ARMS. 121,199



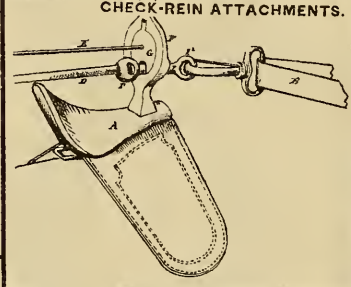
121,200 ELNATHAN SAMPSON, PLATFORM-SCALES.



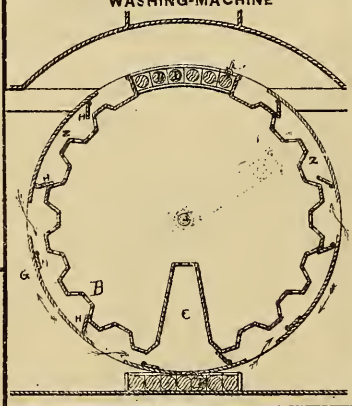
121,201 SARGENT AND MUNGER, BOTTLE-FAUCETS.



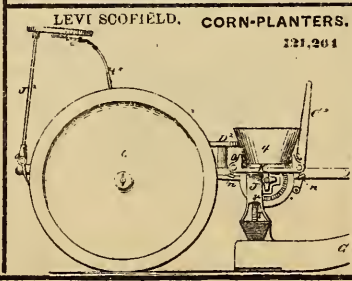
121,202 JOHN SCHOFIELD, CHECK-REIN ATTACHMENTS.



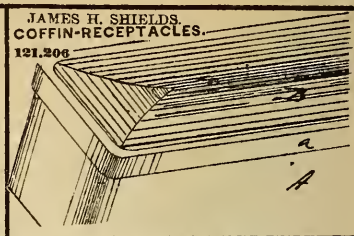
121,203 JOSEPH J. SCHROYER, WASHING-MACHINE



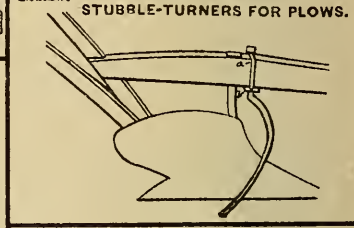
LEVI SCOFIELD, CORN-PLANTERS. 121,204



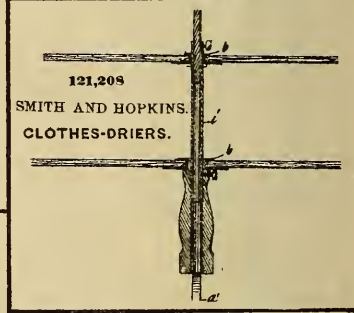
JAMES H. SHIELDS. COFFIN-RECEPTACLES. 121,206



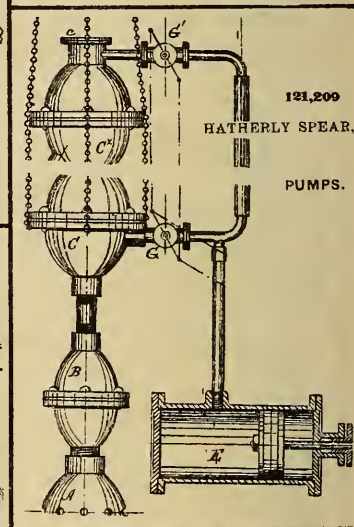
121,207 GEORGE B. SMITH. STUBBLE-TURNERS FOR PLOWS.



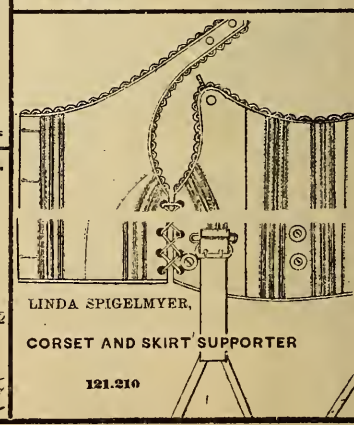
121,208 SMITH AND HOPKINS. CLOTHES-DRIERS.



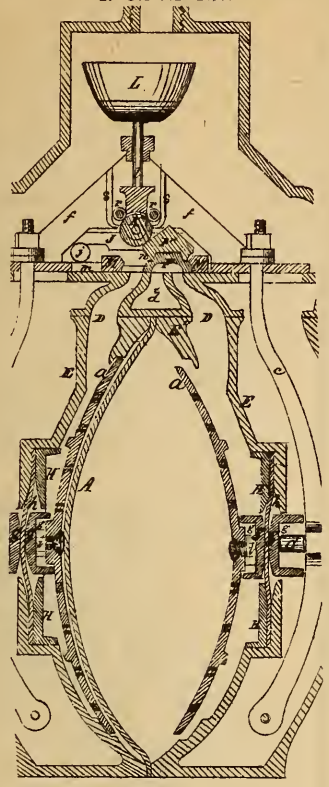
121,209 HATHERLY SPEAR, PUMPS.



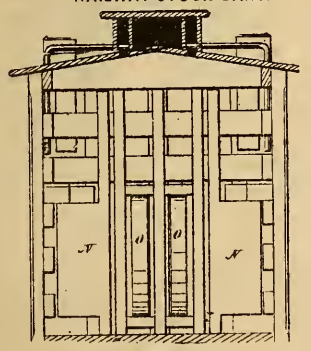
LINDA SPIGELMYER, CORSET AND SKIRT SUPPORTER 121,210



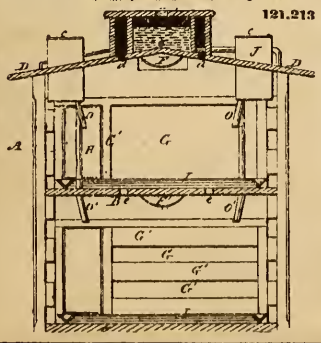
121,211 D. BRAINARD SPOONER,
LIQUID-METERS.



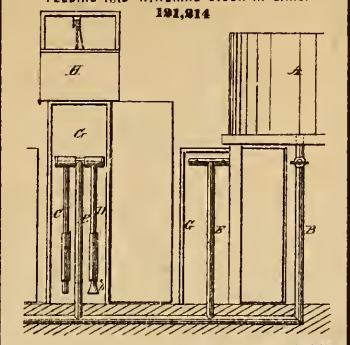
121,212
STARK, FISHER AND FITCH.
RAILWAY STOCK-CARS.

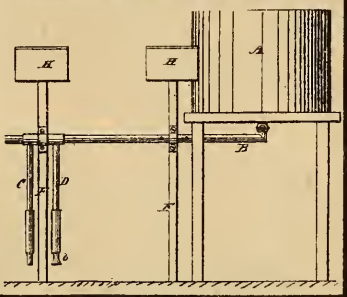


121,213



STARK, FISHER AND FITCH.
FEEDING AND WATERING STOCK IN CARS.
121,214

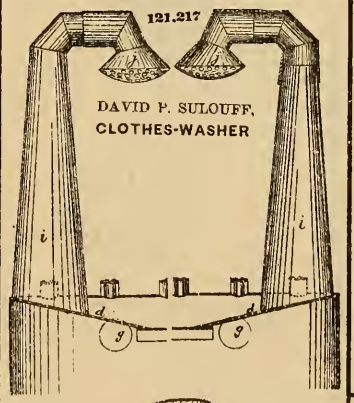


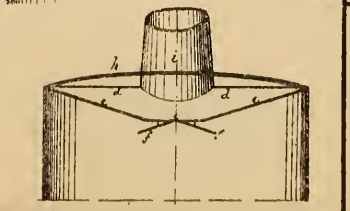


121,215 JACOB STRAUS,
COMPOSITION SADDLERY GOODS.

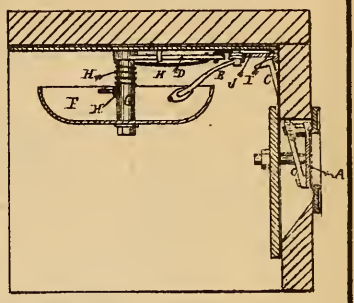
121,216
DAVID P. SULOUFF,
CLOTHES-WASHERS.

121,217
DAVID P. SULOUFF,
CLOTHES-WASHER

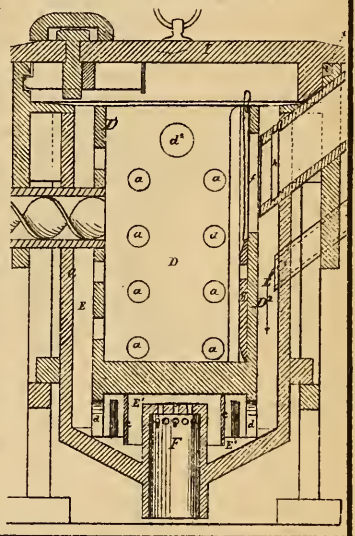




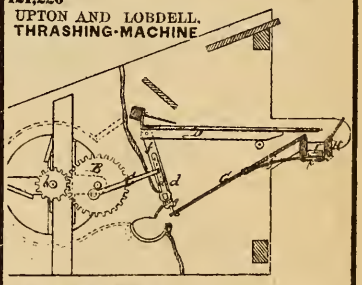
121,218 ALFRED TAYLOR,
ALARMS FOR LETTER-BOXES.

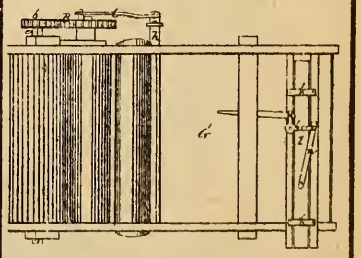


121,219 LOUIS D. TREDWAY.
VAULTS FOR SEWERS.

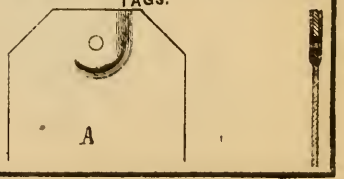


121,220
UPTON AND LOBDELL.
THRASHING-MACHINE

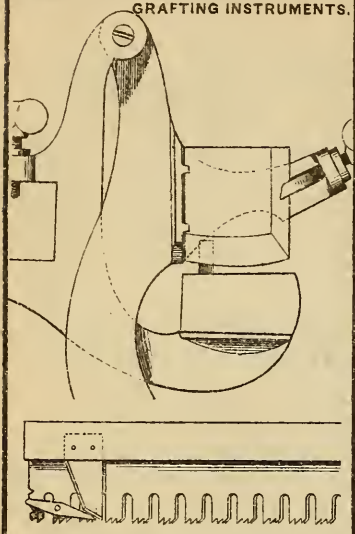




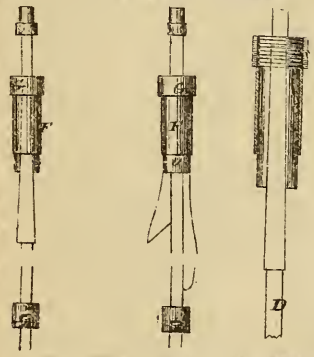
121,221 THEOPHILUS VAN KANNEL.
TAGS.



121,222 DAVID S. WAGENER.
GRAFTING INSTRUMENTS.



121,223 PETER M. WARD.
DRILL-BITS AND REAMERS.



121,224 GENNARO WUNDERLICH.
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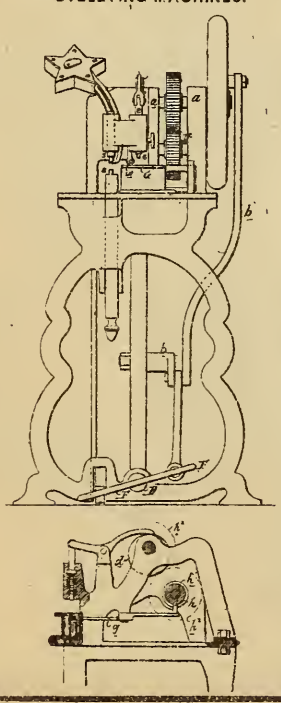
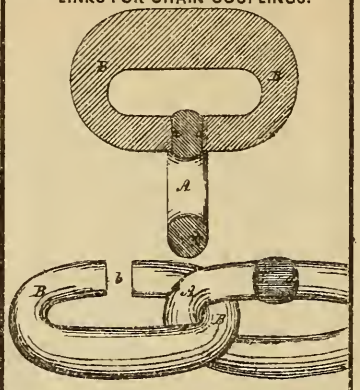
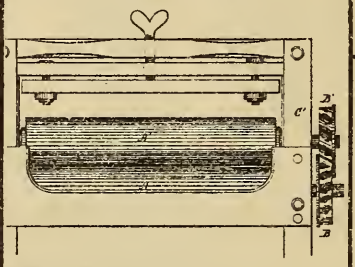


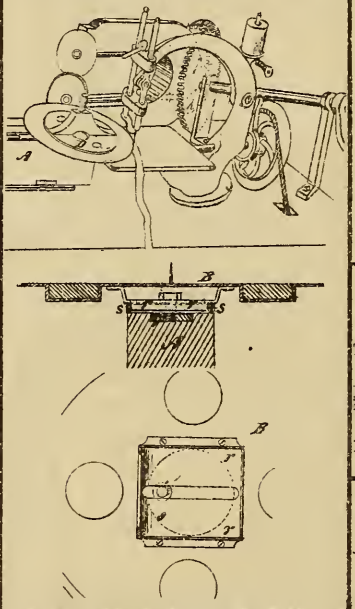
121,225 SALEM T. LAMB.
LINKS FOR CHAIN-COUPLINGS.



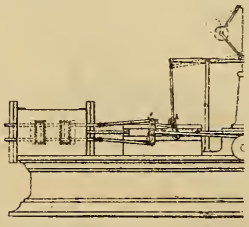
4,638 ROBERT B. HUGUNIN.
CLOTHES-WRINGERS.



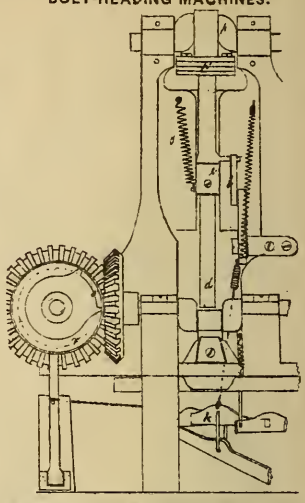
4,639 AGUR JUDSON.
CUTTING AND SEWING OVAL SEAMS.



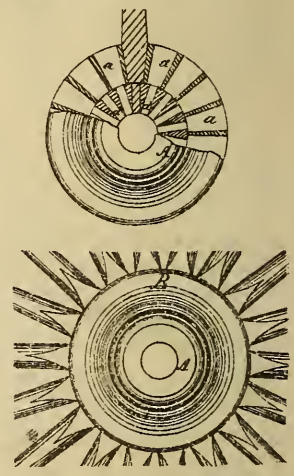
4,640 JOHN E. McKAY
VARIABLE CUT-OFF GEARINGS.



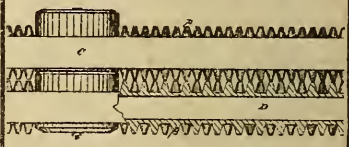
4,641 JAMES MINTER.
BOLT-HEADING MACHINES.



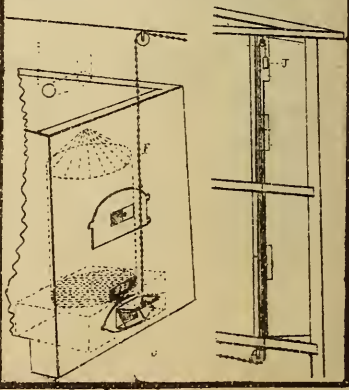
4,642 ALMON WARNER.
HUBS FOR CARRIAGE-WHEELS.



4,643 GOLD, AND FOSKETT.
STEAM-HEATING APPARATUS.

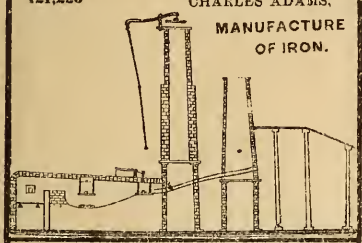


4,644 ALBERT H. MERSHON
REGULATING THE DRAUGHT OF HOT-AIR FURNACES.

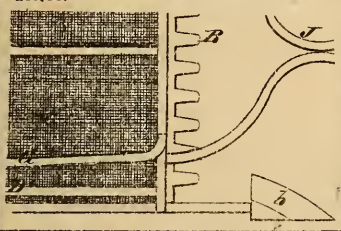


ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
NOVEMBER 28, 1871.

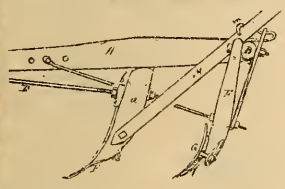
121,226 CHARLES ADAMS, MANUFACTURE OF IRON.



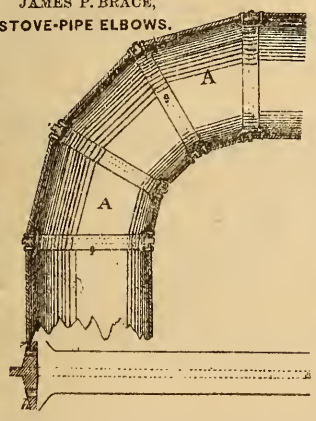
121,227 WILLIAM CORNELIUS BAKER, OYSTER-DREDGES.



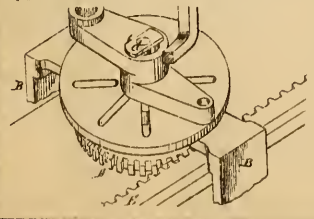
121,228 JOHN W. BLAKE, CULTIVATORS AND HORSE-HOES.



121,229 JAMES P. BRACE, STOVE-PIPE ELBOWS.

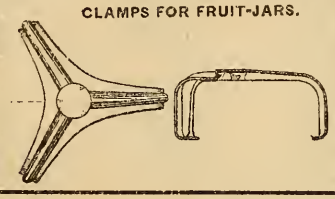


121,230 BRASTOW AND ZWIEBEL, PLANING-MACHINE ATTACHMENTS.

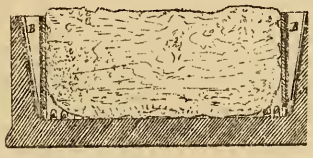


121,231 ERNST BREDT, STUDS FOR SHIRTS.

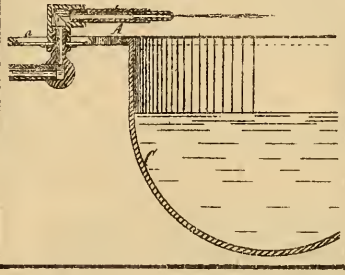
121,232 IRA BUCKMAN, JR. CLAMPS FOR FRUIT-JARS.



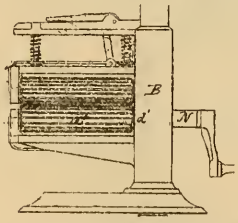
121,233 SETH C. CATLIN, SPONGE-CUPS.



121,234 GUSTAVUS CUPPERS, ILLUMINATING APPARATUS.

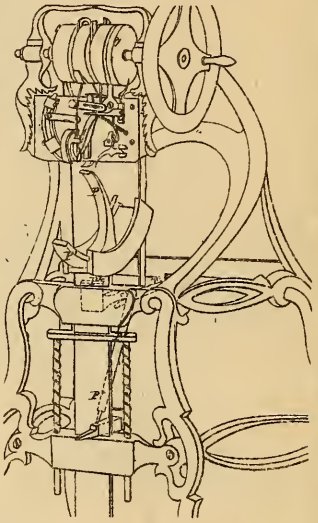


121,235 EDWARD MORTIMER DEEY, FLUTING-MACHINES.

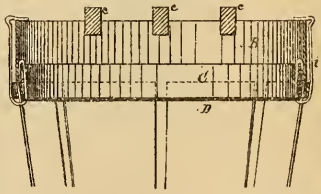


121,236 WILLIAM DOYLE, STOVE-GRATES.

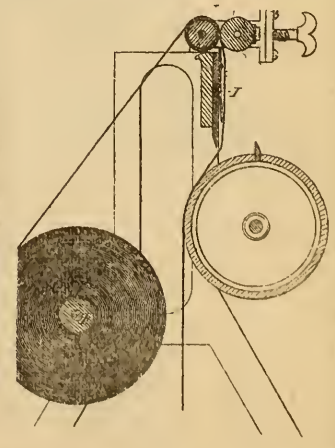
121,237 WILLIAM DUCHEMIN, SEWING-MACHINES FOR BOOTS AND SHOES.



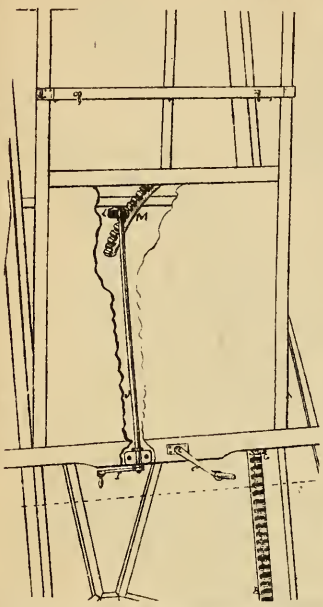
121,238 AARON S. DYCKMAN, COVERS FOR FRUIT-BASKETS.



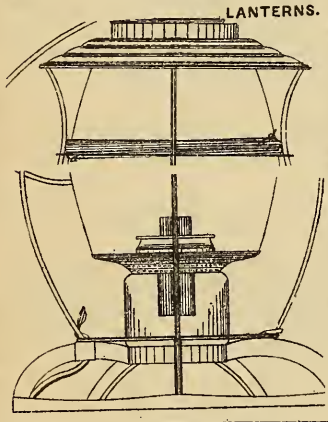
121,239 FRANK A. FLETCHER, PAPER-CUTTING MACHINES.



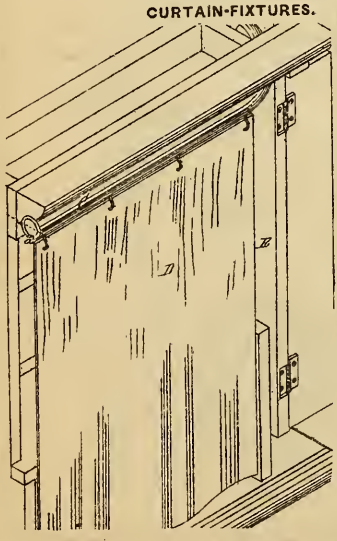
121,240 JOHN CHARLES FORBES,
STUDIO EASELS.



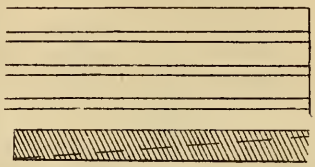
121,241 ALONZO FRENCH,
LANTERNS.



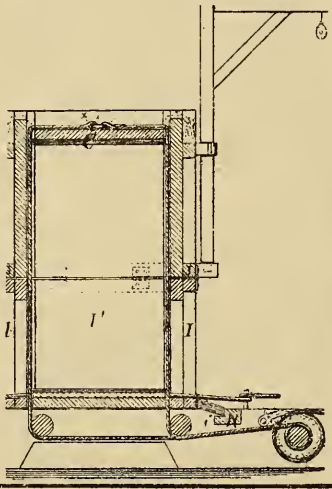
121,242 JOSHUA GRAY,
CURTAIN-FIXTURES.



121,243 FRANK ELMER HALL,
STALL-FLOORS.

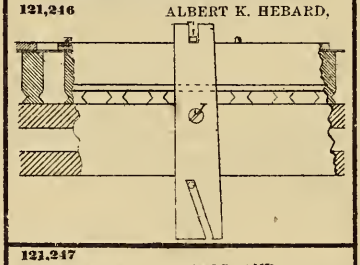


121,244 FINLAY F. HAMILTON,
HAY-PRESSES.

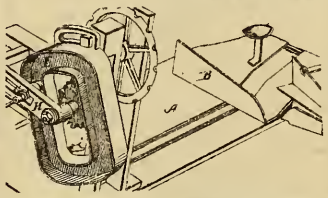


REED ORGANS.

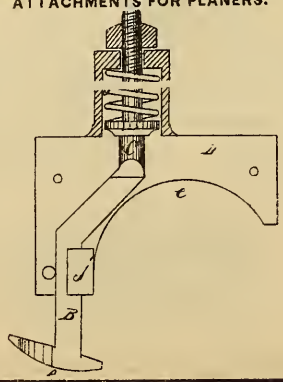
121,246 ALBERT K. HEBARD,



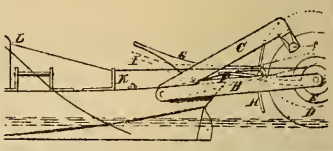
121,247 HEUERMANN, STERNBERG, AND STUHR,
HARVESTER-RAKES.



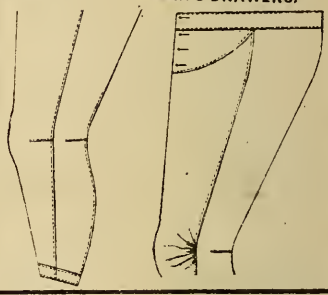
121,248 ALONZO S. HEWLETT,
ATTACHMENTS FOR PLANERS.



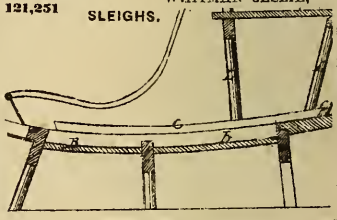
121,249 EZRA B. LAKE,
OYSTER-DREDGES.



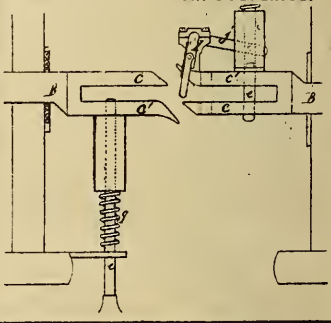
121,250 KILLIAN V. R. LANSINGH, JR.
MEN'S DRAWERS.



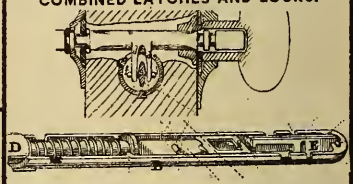
121,251 WHITMAN LESLIE,
SLEIGHS.



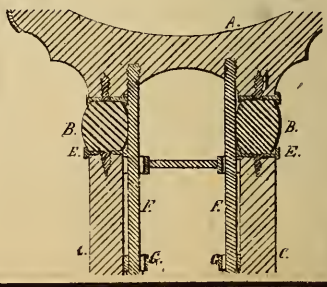
MORGAN AND GERRY,
121,252 CAR-COUPLINGS.



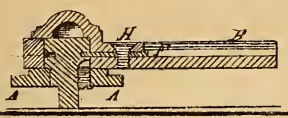
121,253 JOHN H. MORSE,
COMBINED LATCHES AND LOCKS.



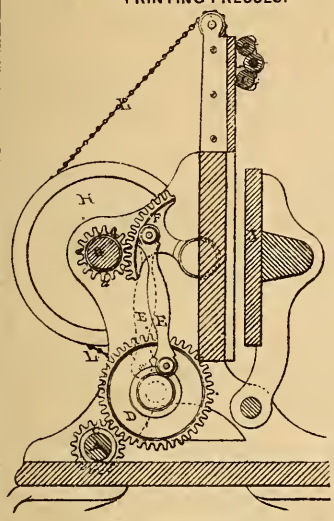
121,254 EUGENE T. PEARL,
CRUTCHES.



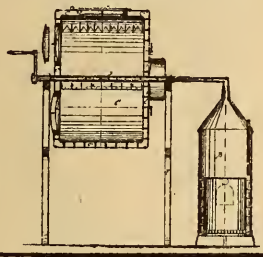
121,255 ANTON PRIER.
ARMS FOR RAILWAY CAR-SEATS.



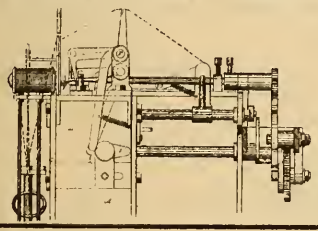
121,256 GEORGE W. PROUTY.
PRINTING-PRESSES.



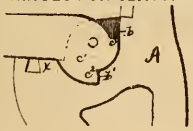
121,257 SOLOMON B. SHOEMAKER.
FEATHER-RENOVATORS.



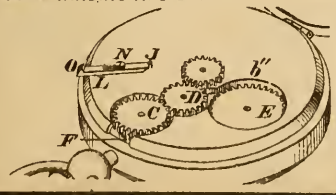
121,258 JOSEPH SLADDIN.
MACHINES FOR MAKING LOOM-HARNESS



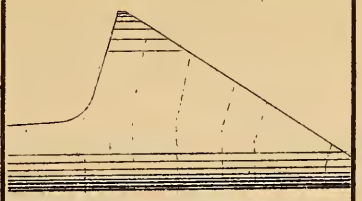
121,259 WILLIAM A. SLAYMAKER,
HINGES FOR SEATS.



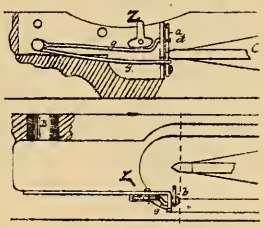
121,260 HARRY R. SMITH AND
RUFUS FOLSOM
STEM-WINDING AND SETTING WATCHES



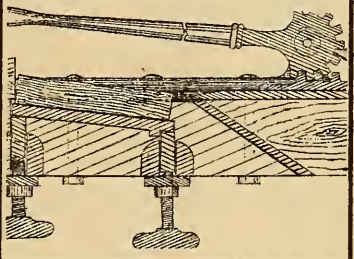
121,261 JOHN EDSON SWEET.
GUARDS FOR HARVESTING-MACHINES.



121,262 FREDERICK O. TUCKER,
LOOM-SHUTTLES.

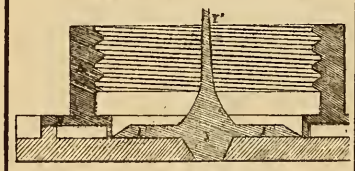


121,264 NORMAN WARNER,
MACHINES FOR CUTTING WEDGES.

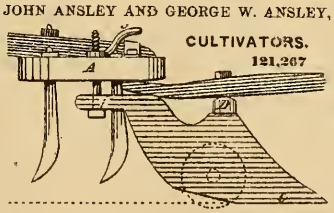


121,265 THOMAS WATSON.
NOZZLES.

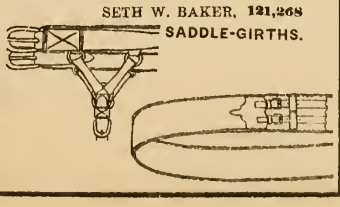
121,266 WILLIAM D. ALFORD,
CASTING FEMALE SCREWS.



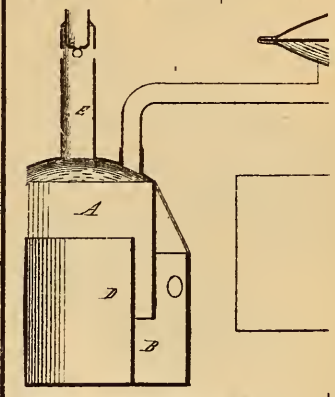
JOHN ANSLEY AND GEORGE W. ANSLEY,
CULTIVATORS. 121,267



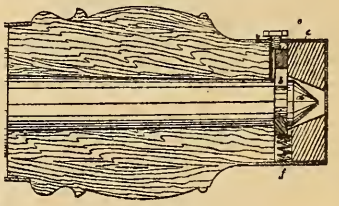
SETH W. BAKER, 121,268
SADDLE-GIRTHS.



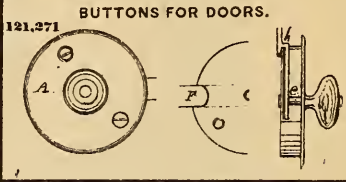
121,269 JOHN F. BARKER.
BLOWING APPARATUS FOR ORGANS.



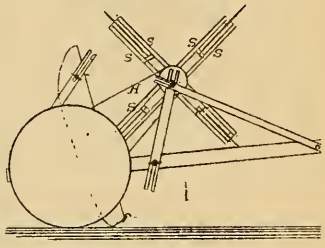
121,270 JOHN WILLIAMS BEAL.
ATTACHING WHEELS TO AXLES.



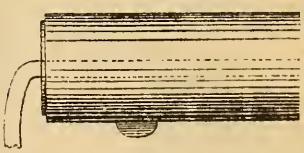
GEORGE F. BEARDSLEY,
BUTTONS FOR DOORS.
121,271



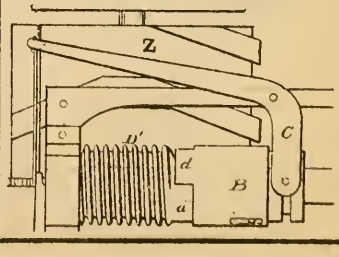
121,272 JOHN M. BENNETT.
INSECT-DESTROYERS.



121,273 FREDERICK BRUNS,
FLAT-IRON HOLDERS.

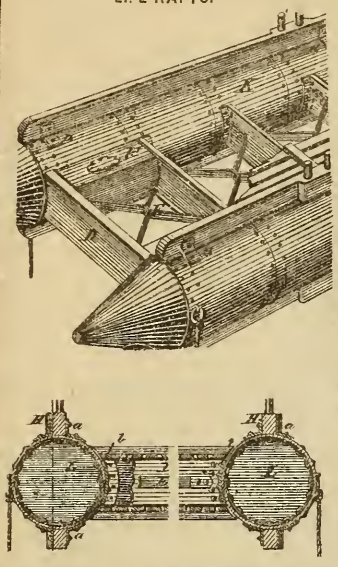


121,274 HENRY R. BUTTERFIELD,
MAKING SHOVEL-HANDLES.



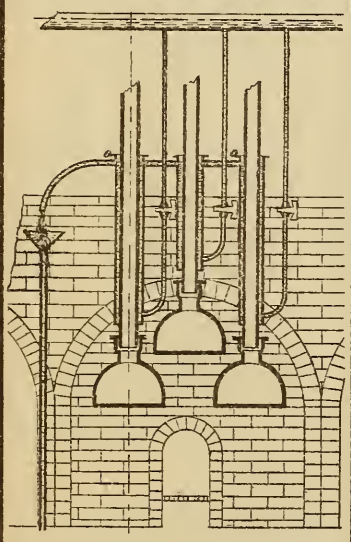
121,275 HERVEY C. CALKIN.

LIFE-RAFTS.



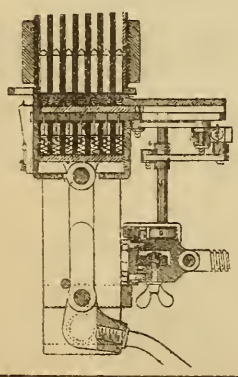
121,276 MOSES COOMBS, JR.,

STAND-PIPES OF GAS-RETORTS.



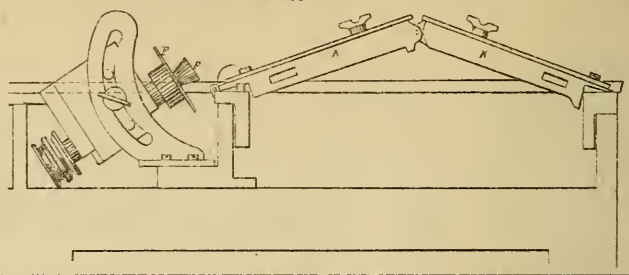
121,277 CHRISTOPHE AND MONTIGNY.

MACHINE-GUNS.



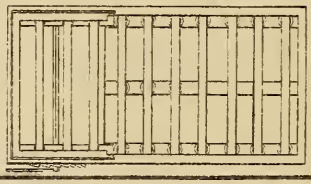
121,278 ASAHEL DAVIS.

DOVETAILING-MACHINES



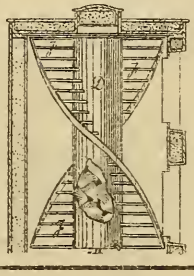
121,279 DEMING, DEMING, AND ALDEN.

BED-BOTTOMS.



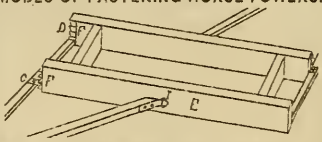
121,280 JOSEPH F. DICK,

REFRIGERATORS.



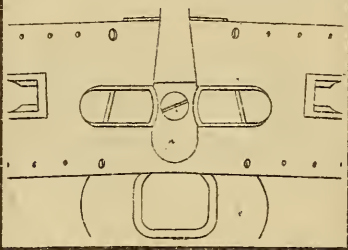
121,281 HIRAM CHARLES DREW,

MODES OF FASTENING HORSE-POWERS.



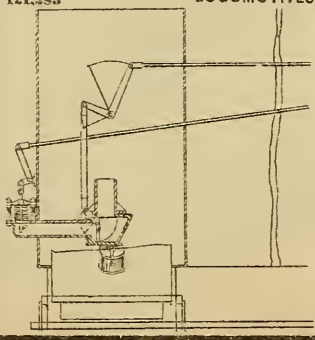
121,282 EDWARD H. DUNN,

SADDLE-TREES.



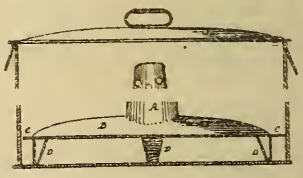
121,283 RICHARD S. GILLESPIE,

LOCOMOTIVES.



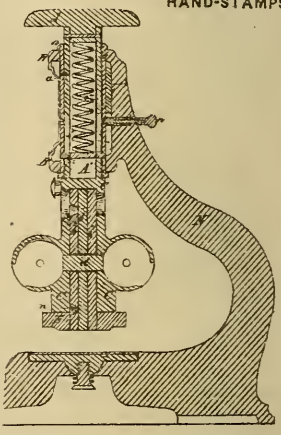
121,285 ABRAHAM S. HERR,

WASH-BOILERS.



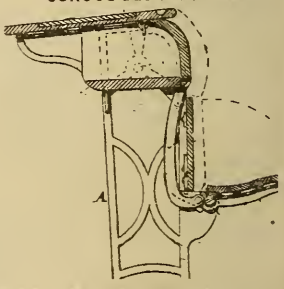
121,286 BENJAMIN B. HILL.

HAND-STAMPS.



121,287 WENDELL P. HOOD,

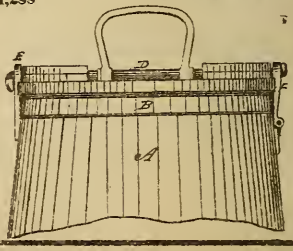
SCHOOL-DESKS AND SEATS.



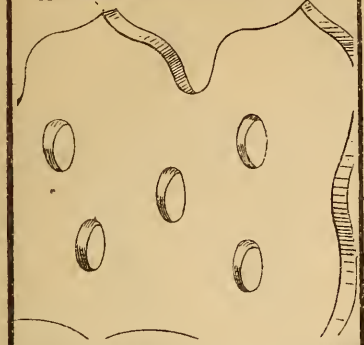
KELLOGG AND GEORGE N. IVES,

COVERED BUCKETS.

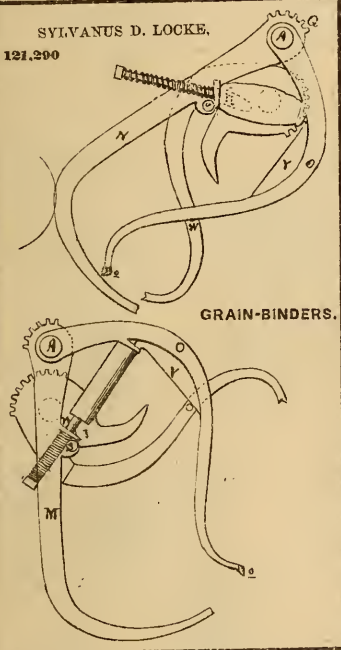
121,288



121,289 HELENA P. DE BRUYN KOPS.
DEVELOPMENT OF THE MUSCLES OF THE HANDS.



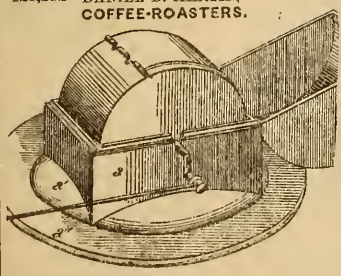
SYLVANUS D. LOCKE.
121,290



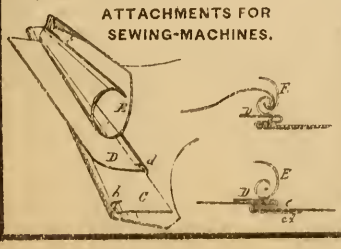
GRAIN-BINDERS.

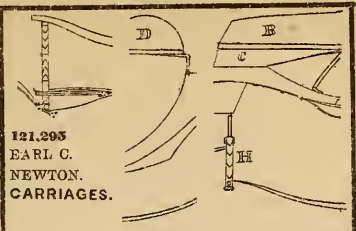
121,291 ALPHEUS B. MANARD,
COPY-HOLDERS.

121,292 DANIEL D. MARTIN,
COFFEE-ROASTERS.



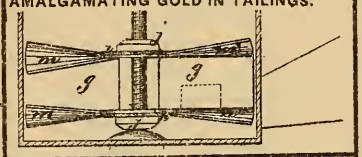
121,293 SARAH O. MATTESON,
ATTACHMENTS FOR
SEWING-MACHINES.

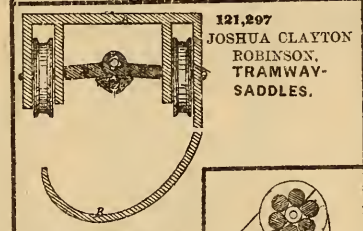




121,295
EARL C.
NEWTON.
CARRIAGES.

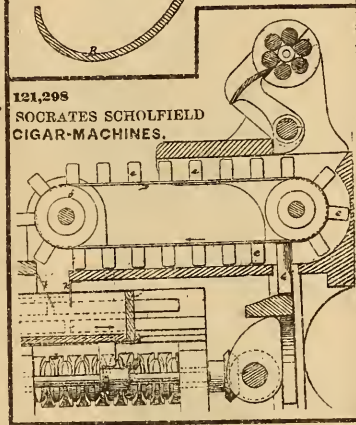
121,296 THOMAS A. PRATT,
AMALGAMATING GOLD IN TAILINGS.



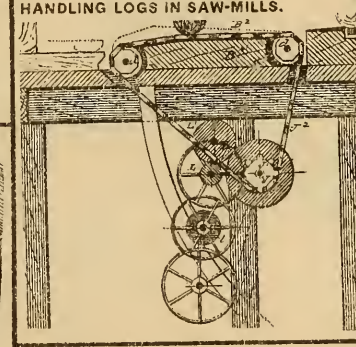


121,297
JOSHUA CLAYTON
ROBINSON,
TRAMWAY-
SADDLES.

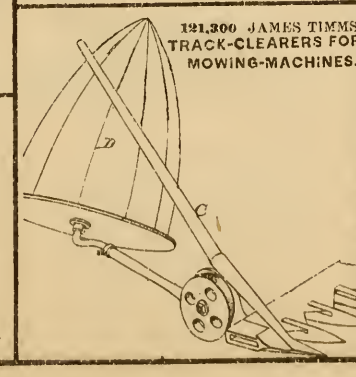
121,298
SOCRATES SCHOLFIELD
CIGAR-MACHINES.



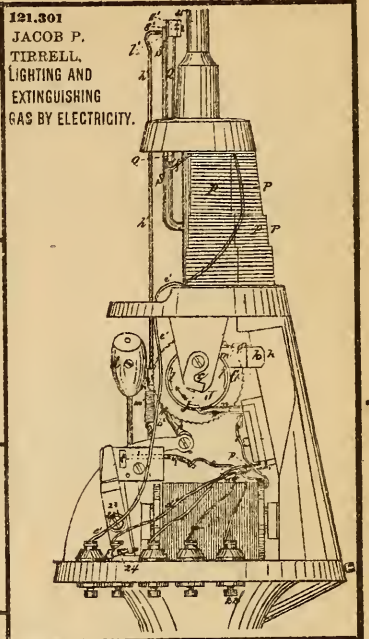
121,299 EDWARD H. STEARNS,
HANDLING LOGS IN SAW-MILLS.



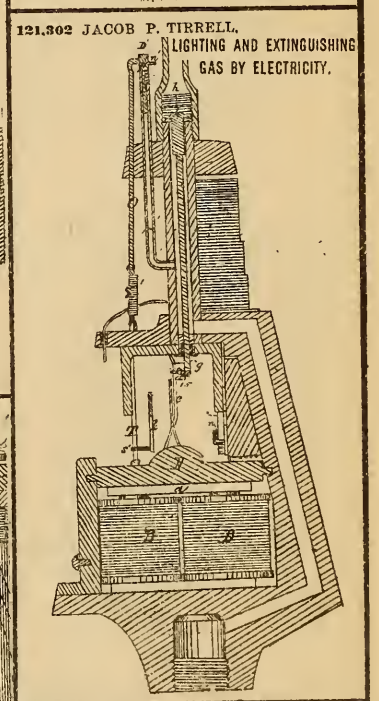
121,300 JAMES TIMMS.
TRACK-CLEARERS FOR
MOWING-MACHINES.



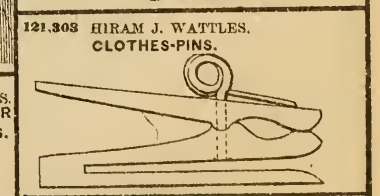
121,301
JACOB P.
TIRRELL,
LIGHTING AND
EXTINGUISHING
GAS BY ELECTRICITY.



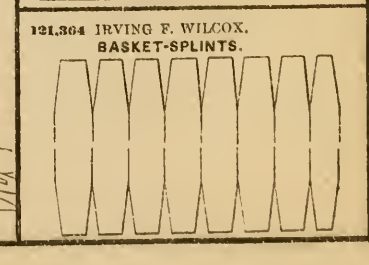
121,302 JACOB P. TIRRELL,
LIGHTING AND EXTINGUISHING
GAS BY ELECTRICITY.

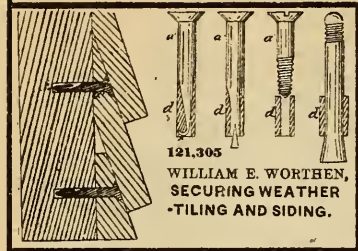


121,303 HIRAM J. WATTLES.
CLOTHES-PINS.



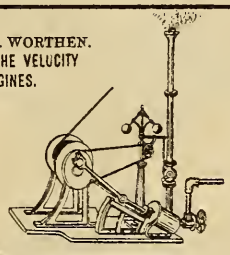
121,304 IRVING F. WILCOX.
BASKET-SPLINTS.



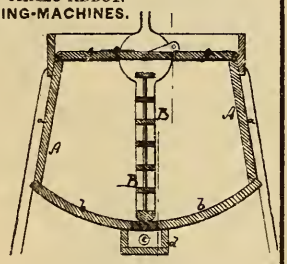


121,305
WILLIAM E. WORTHEN,
SECURING WEATHER
-TILING AND SIDING.

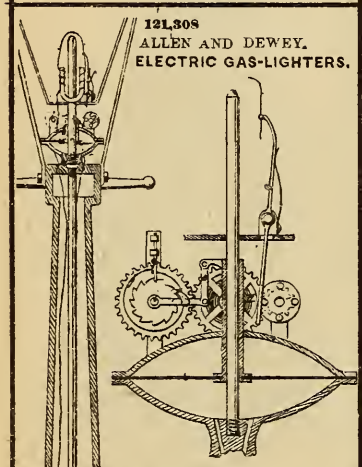
121,306
WILLIAM E. WORTHEN.
CONTROLLING THE VELOCITY
OF STEAM-ENGINES.

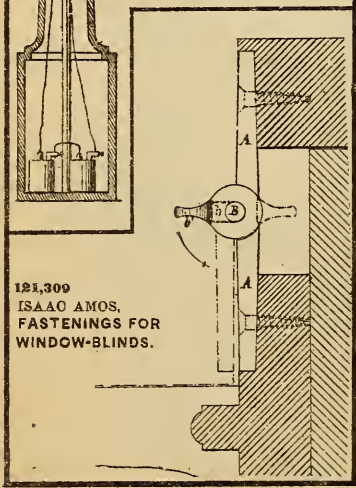


121,307 JAMES ABBOT.
WASHING-MACHINES.

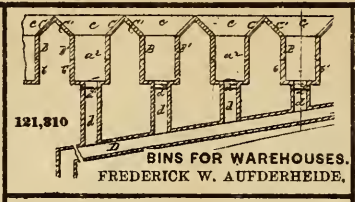


121,308
ALLEN AND DEWEY.
ELECTRIC GAS-LIGHTERS.



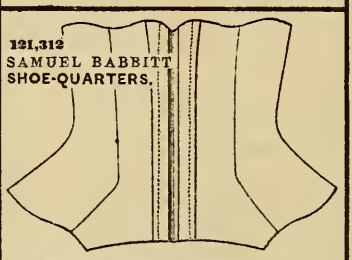


121,309
ISAAC AMOS.
FASTENINGS FOR
WINDOW-BLINDS.

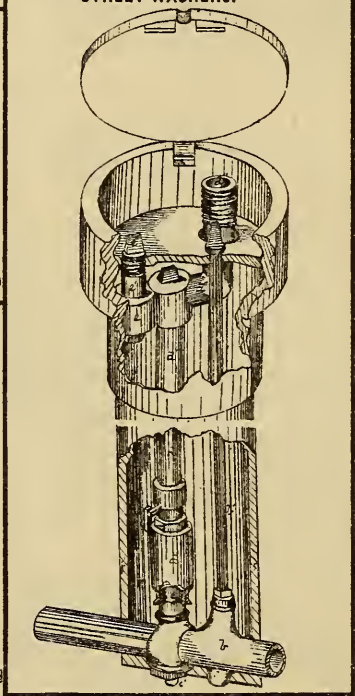


121,310
BINS FOR WAREHOUSES.
FREDERICK W. AUFDERHEIDE.

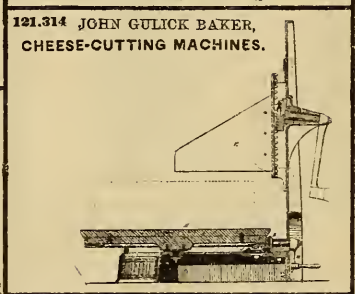
121,312
SAMUEL BABBITT
SHOE-QUARTERS.



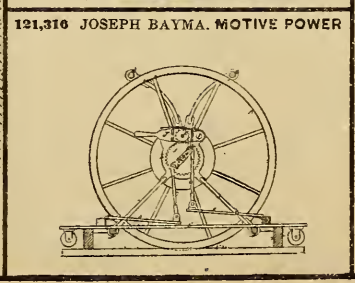
121,313 GEORGE O. BAILEY,
STREET-WASHERS.



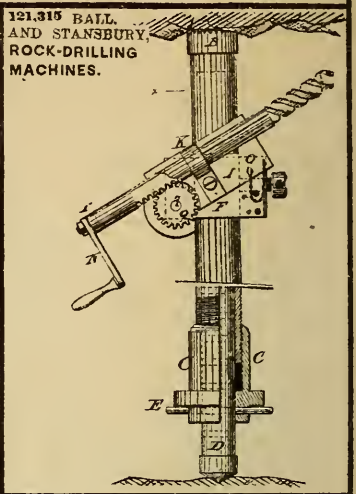
121,314 JOHN GULICK BAKER,
CHEESE-CUTTING MACHINES.



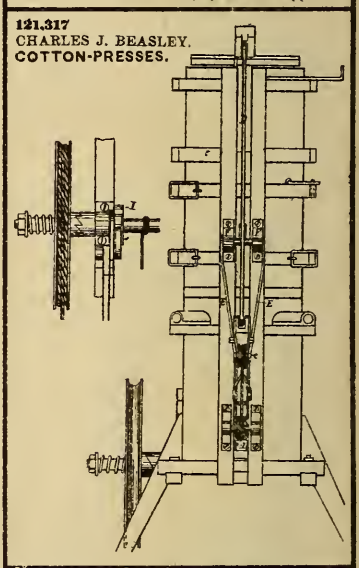
121,316 JOSEPH BAYMA. MOTIVE POWER



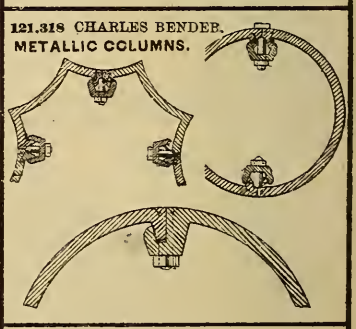
121,315 BALL.
AND STANSBURY,
ROCK-DRILLING
MACHINES.



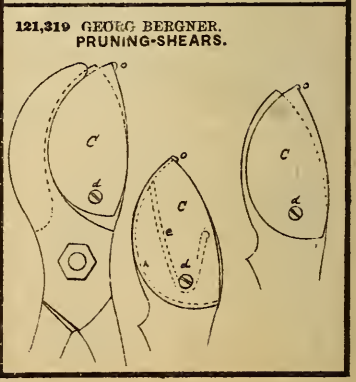
121,317
CHARLES J. BEASLEY.
COTTON-PRESSES.



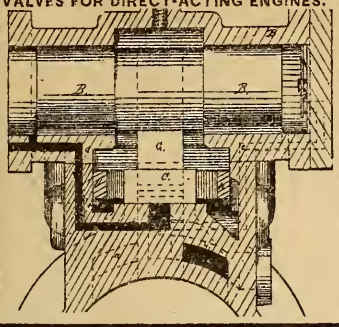
121,318 CHARLES BENDER.
METALLIC COLUMNS.



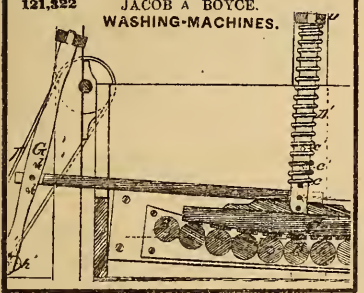
121,319 GEORG BERGNER.
PRUNING-SHEARS.



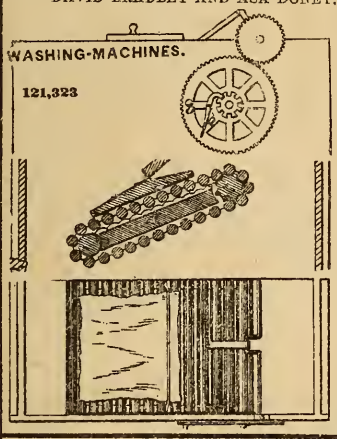
121,320 GEORGE F. BLAKE.
VALVES FOR DIRECT-ACTING ENGINES.



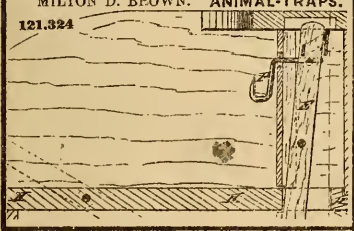
121,322 JACOB A BOYCE.
WASHING-MACHINES.



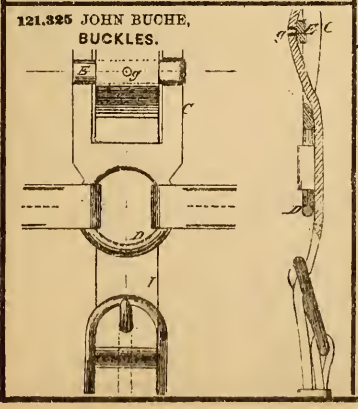
DAVID BRADLEY AND ASA DONEY.
WASHING-MACHINES.
121,323



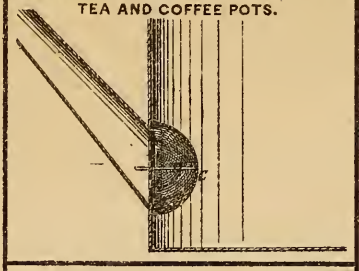
MILTON D. BROWN. ANIMAL-TRAPS.
121,324



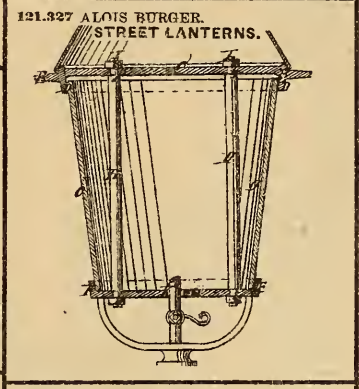
121,325 JOHN BUCHE,
BUCKLES.



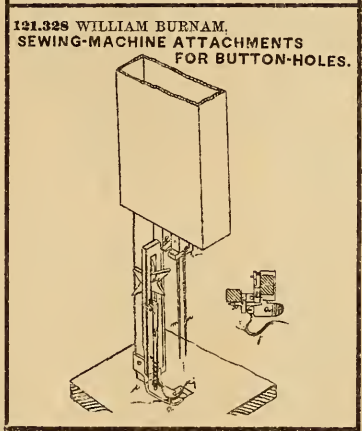
121,326 EDWARDS M. BURCHARD,
TEA AND COFFEE POTS.



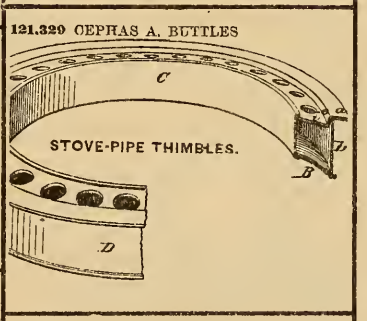
121,327 ALOIS BURGER.
STREET LANTERNS.



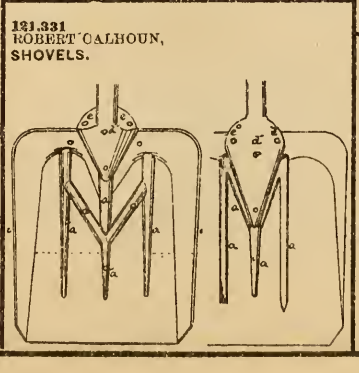
121,328 WILLIAM BURNAM.
SEWING-MACHINE ATTACHMENTS
FOR BUTTON-HOLES.



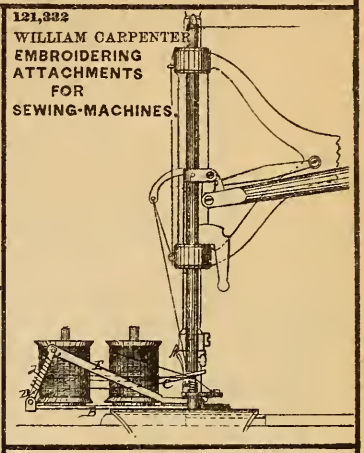
121,329 CEPHAS A. BUTTLES
STOVE-PIPE THIMBLES.



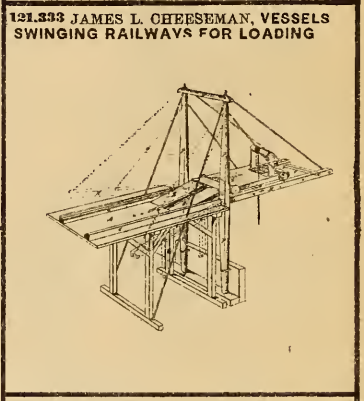
121,331
ROBERT CALHOUN,
SHOVELS.



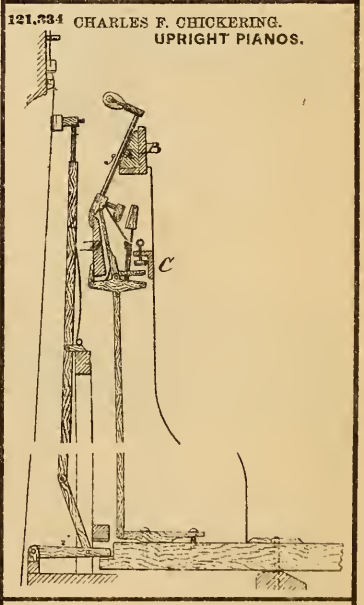
121,332
WILLIAM CARPENTER
EMBROIDERING
ATTACHMENTS
FOR
SEWING-MACHINES.



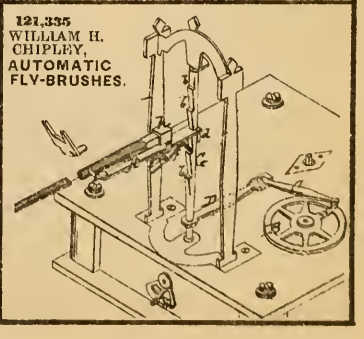
121,333 JAMES L. CHEESEMAN, VESSELS
SWINGING RAILWAYS FOR LOADING



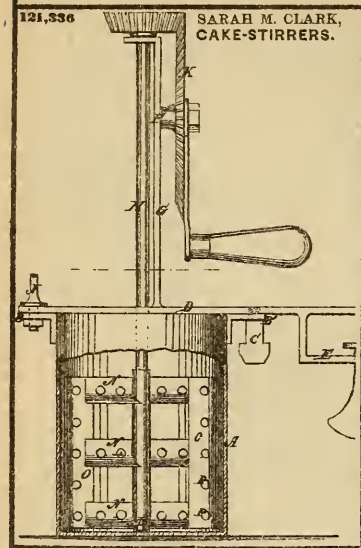
121,334 CHARLES F. CHICKERING.
UPRIGHT PIANOS.



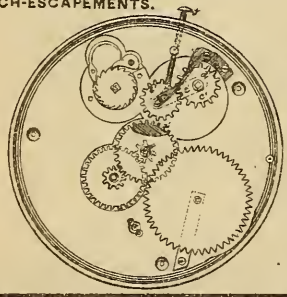
121,335
WILLIAM H.
CHIPLEY,
AUTOMATIC
FLY-BRUSHES.



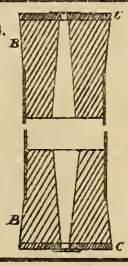
121,336 SARAH M. CLARK, CAKE-STIRRERS.



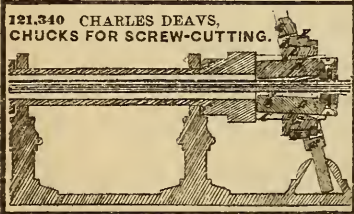
121,337 ABEL COOMBS, WATCH-ESCAPEMENTS.



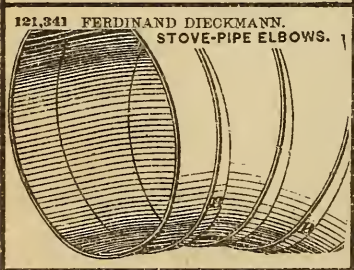
121,339 WILLIAM H. CUMMINGS, KNIFE-POLISHERS.



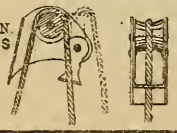
121,340 CHARLES DEAVS, CHUCKS FOR SCREW-CUTTING.



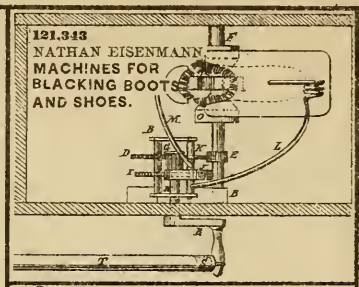
121,341 FERDINAND DIECKMANN. STOVE-PIPE ELBOWS.



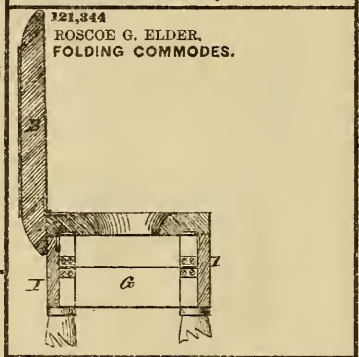
121,342 CHARLES EATON CURTAIN-FIXTURES



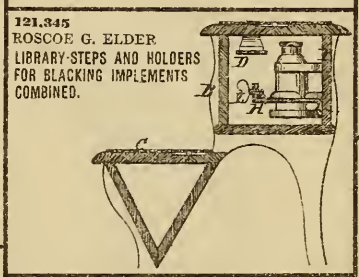
121,343 NATHAN EISENMANN, MACHINES FOR BLACKING BOOTS AND SHOES.



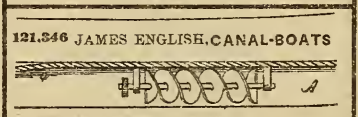
121,344 ROSCOE G. ELDER, FOLDING COMMODES.



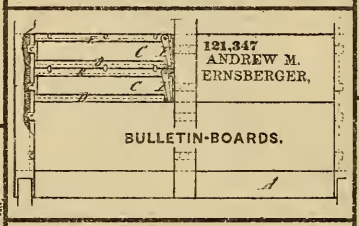
121,345 ROSCOE G. ELDER LIBRARY-STEPS AND HOLDERS FOR BLACKING IMPLEMENTS COMBINED.



121,346 JAMES ENGLISH, CANAL-BOATS

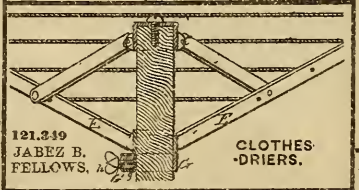


121,347 ANDREW M. ERNSBERGER, BULLETIN-BOARDS.

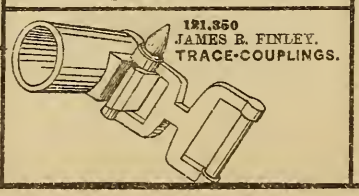


121,348 JAMES L. ESTILL. NUT-LOCKING DEVICES.

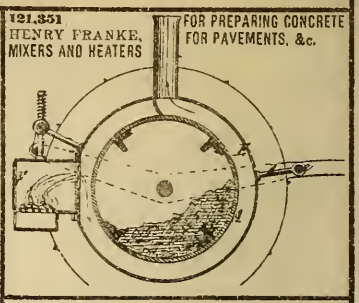
121,349 JABEZ B. FELLOWS. CLOTHES-DRIERS.



121,350 JAMES R. FINLEY. TRACE-COUPLINGS.

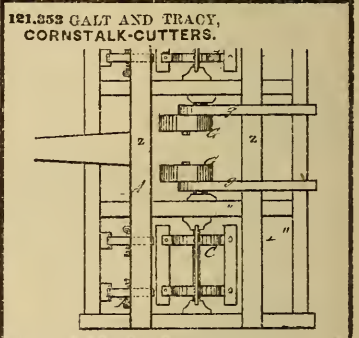


121,351 HENRY FRANKE, MIXERS AND HEATERS FOR PREPARING CONCRETE FOR PAVEMENTS, &c.

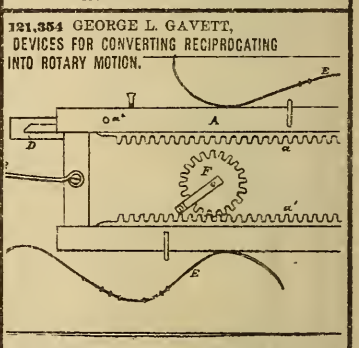


121,352 CONRAD GAHR. METHODS OF MAKING HARNESS-PADS.

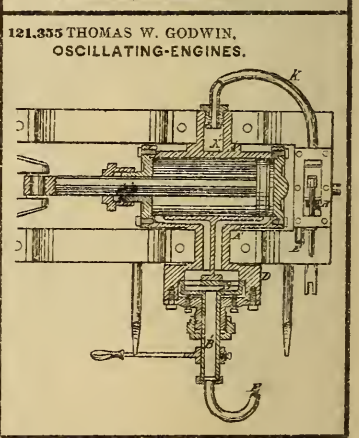
121,353 GALT AND TRACY, CORNSTALK-CUTTERS.



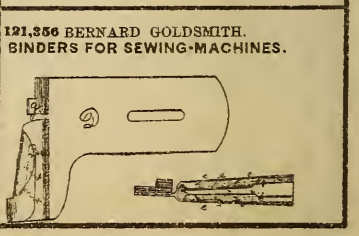
121,354 GEORGE L. GAVETT, DEVICES FOR CONVERTING RECIPROCATING INTO ROTARY MOTION.



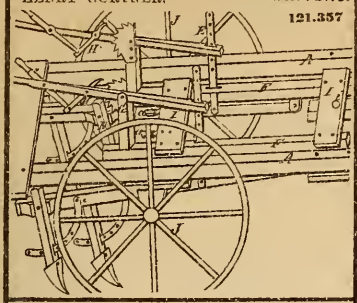
121,355 THOMAS W. GODWIN, OSCILLATING-ENGINES.



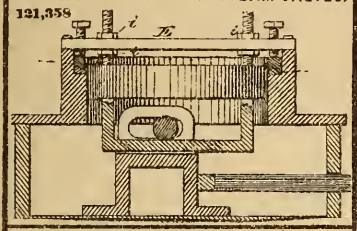
121,356 BERNARD GOLDSMITH. BINDERS FOR SEWING-MACHINES.



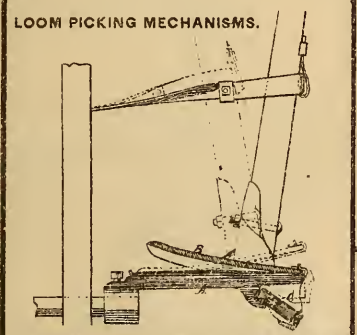
HENRY GORTNER. CORN-PLANTERS.
121,357



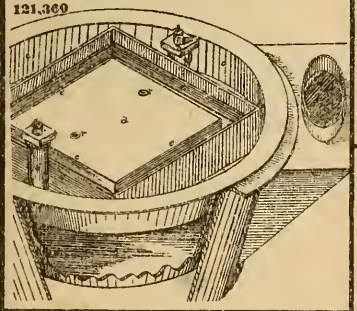
121,358 WILLIAM F. GOULD. STEAM-VALVES.

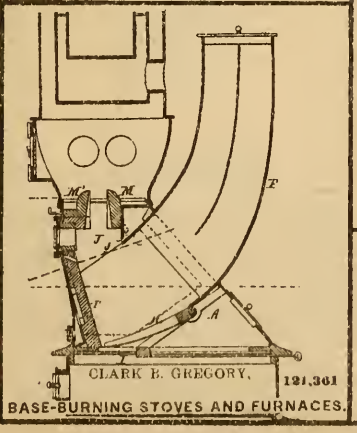


121,359
ELIJAH D. GOVE,
LOOM PICKING MECHANISMS.



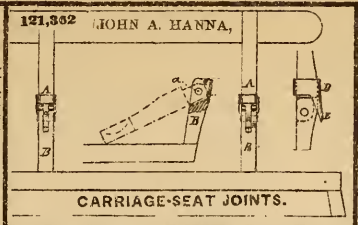
JOHN GRACIE. SOLDERING APPARATUS.
121,360





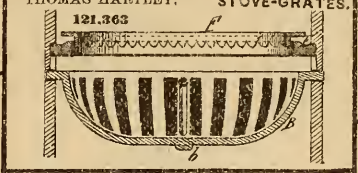
CLARK E. GREGORY, 121,361
BASE-BURNING STOVES AND FURNACES.

121,362 JOHN A. HANNA,

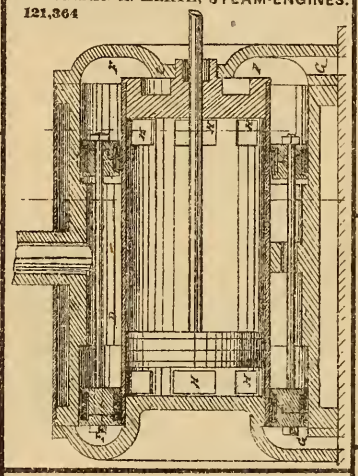


CARRIAGE-SEAT JOINTS.

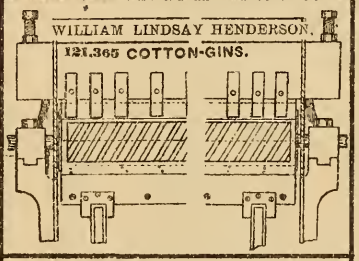
THOMAS HARTLEY. STOVE-GRATES.
121,363



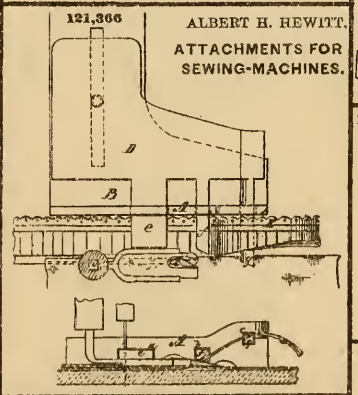
ARDEN A. HEATH, STEAM-ENGINES.
121,364



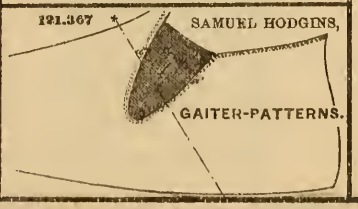
WILLIAM LINDSAY HENDERSON,
121,365 COTTON-GINS.



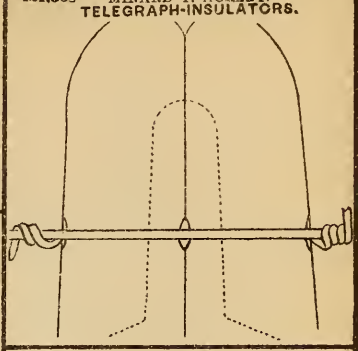
121,366 ALBERT H. HEWITT,
ATTACHMENTS FOR SEWING-MACHINES.



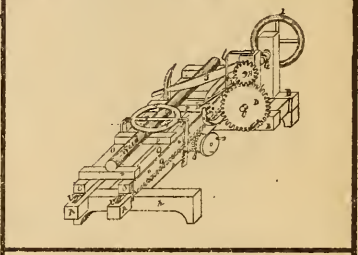
121,367 SAMUEL HODGINS,
GAITER-PATTERNS.

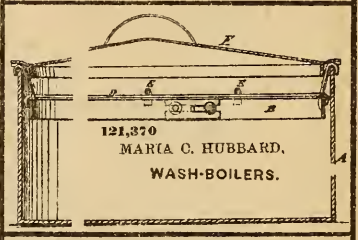


121,368 MINARD Y. HOLLEY.
TELEGRAPH-INSULATORS.



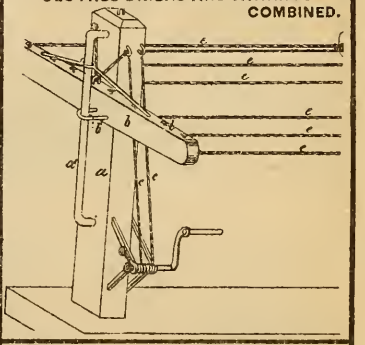
121,369 JOHN O. HOUGH SAWING-MACHINE



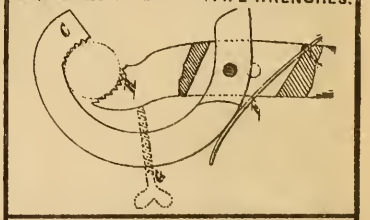


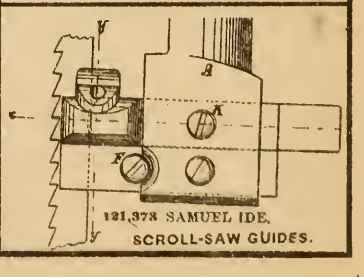
121,370
MARIA C. HUBBARD,
WASH-BOILERS.

121,371 CHARLES E. HYDE,
CLOTHES-DRIERS AND AWNINGS COMBINED.



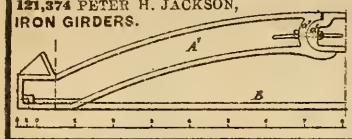
121,372 HENRY A. HYLE, PIPE-WRENCHES.



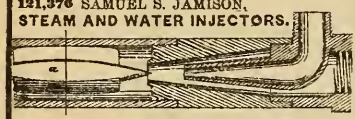


121,373 SAMUEL IDE,
SCROLL-SAW GUIDES.

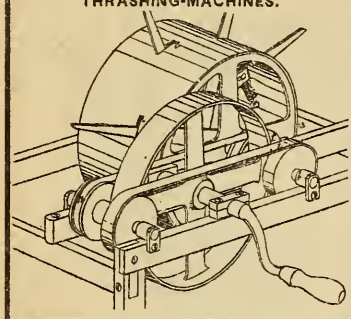
121,374 PETER H. JACKSON, IRON GIRDERS.



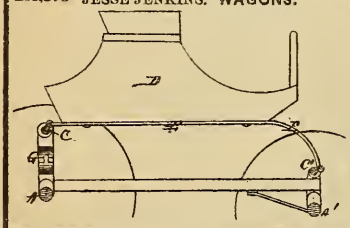
121,376 SAMUEL S. JAMISON, STEAM AND WATER INJECTORS.



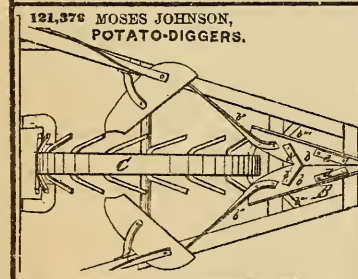
121,377 FREDERICK P. JAQUITH, THRASHING-MACHINES.



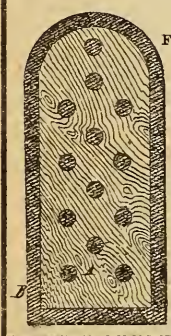
121,378 JESSE JENKINS. WAGONS.



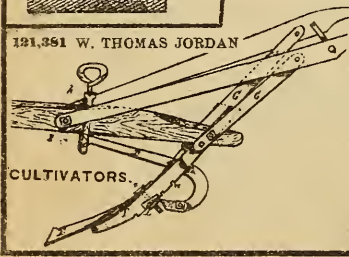
121,379 MOSES JOHNSON, POTATO-DIGGERS.



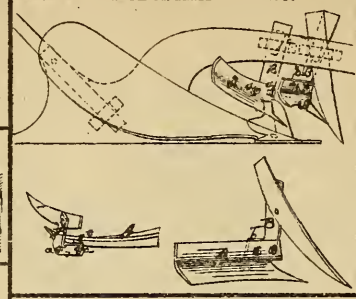
121,380 FRANCIS MARIN JONES MONUMENTS.



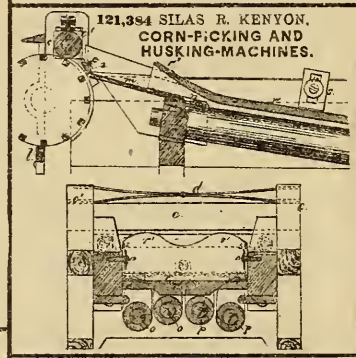
121,381 W. THOMAS JORDAN CULTIVATORS.



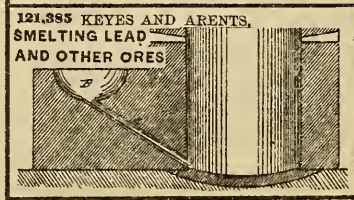
121,382 HORACE M. KEITH PLOWS.



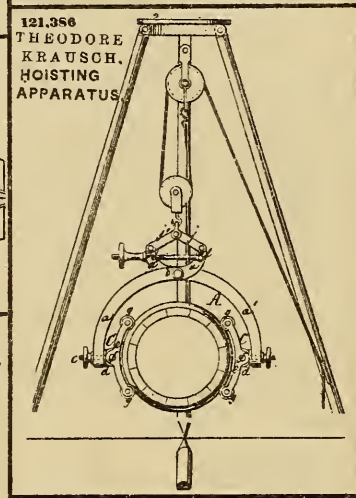
121,384 SILAS R. KENYON, CORN-PICKING AND HUSKING-MACHINES.



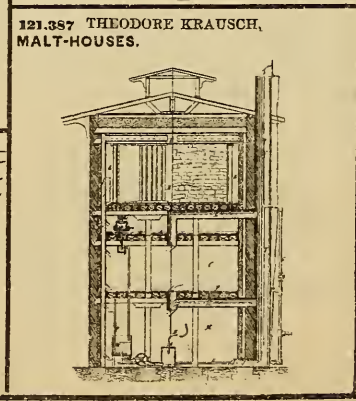
121,385 KEYES AND ARENTS, SMELTING LEAD AND OTHER ORES.



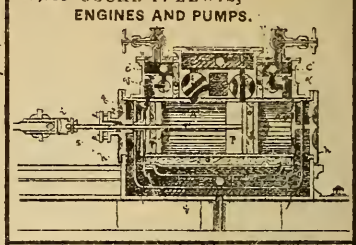
121,386 THEODORE KRAUSCH, HOISTING APPARATUS.



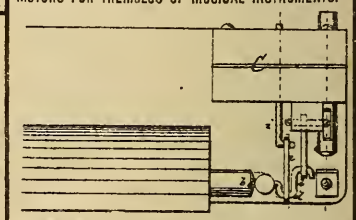
121,387 THEODORE KRAUSCH, MALT-HOUSES.



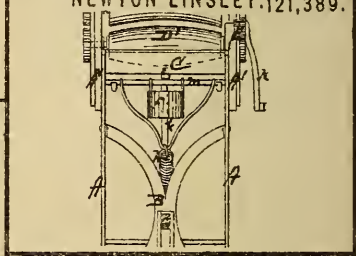
121,388 OSCAR P. LEWIS, ENGINES AND PUMPS.



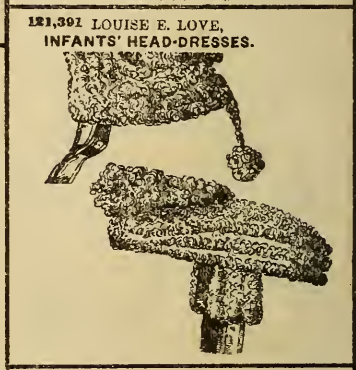
121,390 JOHN R. LOMAS, MOTORS FOR TREMOLOS OF MUSICAL INSTRUMENTS.



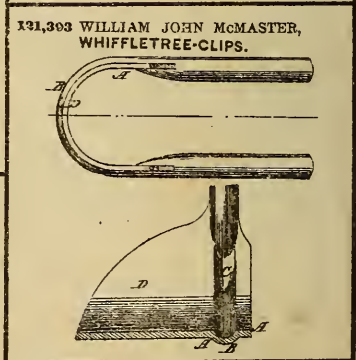
Machines for Rolling Leather. NEWTON LINSLEY. 121,389.



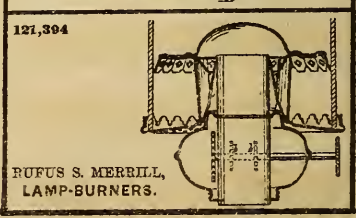
121,391 LOUISE E. LOVE, INFANTS' HEAD-DRESSES.



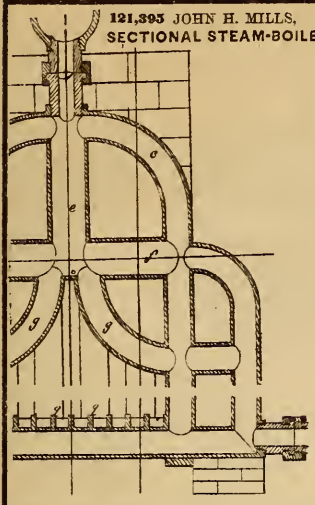
121,393 WILLIAM JOHN McMASTER, WHIFFLETREE-CLIPS.



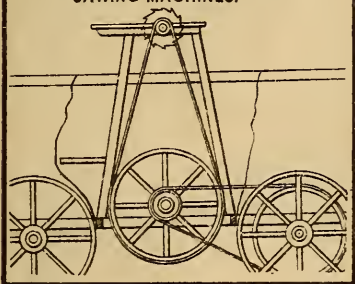
121,394 RUFUS S. MERRILL, LAMP-BURNERS.



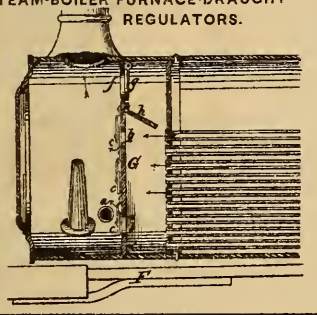
121,395 JOHN H. MILLS, SECTIONAL STEAM-BOILERS.



121,396 JOSEPH K. MILNOR, SAWING-MACHINES.

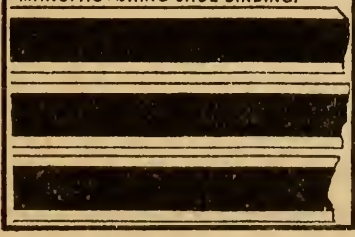


121,398 THOMAS H. MOORE, STEAM-BOILER FURNACE-DRAUGHT REGULATORS.

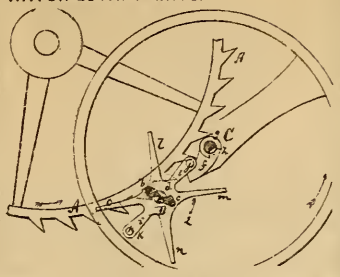


121,399 BERNARD MORAHAN, PEPPER AND SPICE BOXES

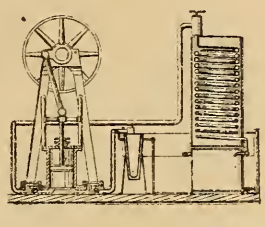
121,400 CHARLES E. MORRILL, MANUFACTURING SHOE-BINDING.



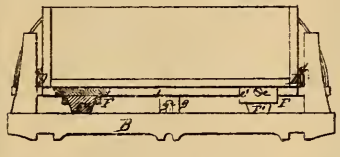
121,401 DON J. MOZART, WATCH-ESCAPEMENTS.



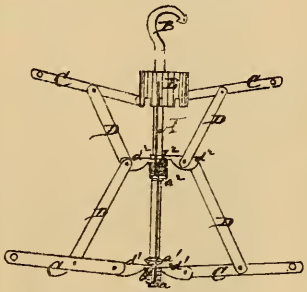
121,402 A. MÜHL, MANUFACTURE OF ICE.



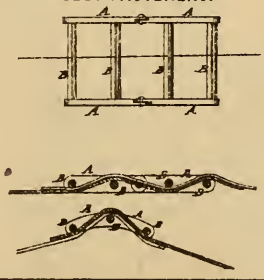
121,403 WILLIAM ARTHUR NICHOLS, WAGONS.



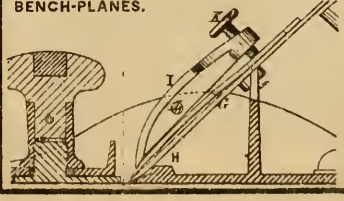
121,404 RICHARD L. NORMANDO, CLOTHES-DRIERS.



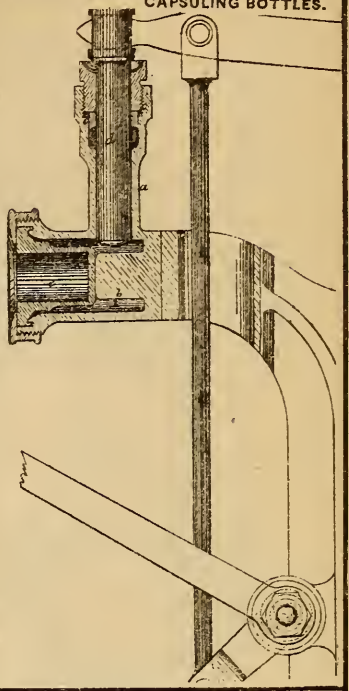
121,405 MARCELLUS OLMSTED, BELT-FASTENERS.



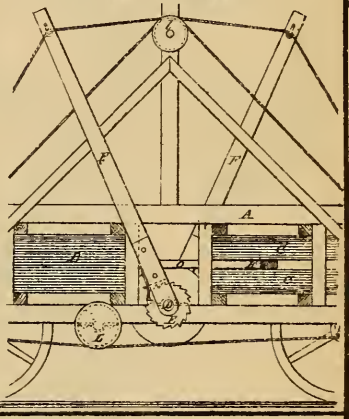
121,406 PALMER AND STORKE, BENCH-PLANES.



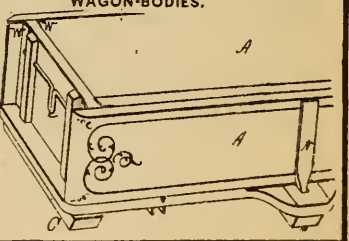
121,407 JAMES PATERSON CAPSULING BOTTLES.



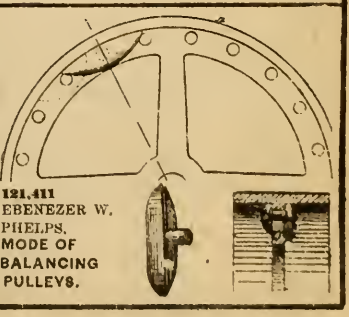
121,408 WILLIAM H. H. PEAIRS. BALING-PRESSES.



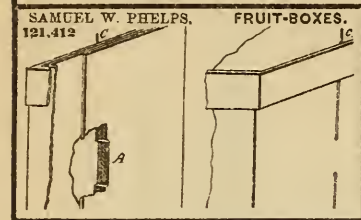
121,409 JAMES D. PETTIT. WAGON-BODIES.

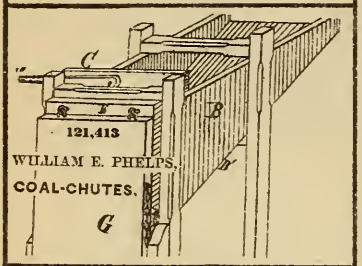


121,411 EBENEZER W. PHELPS. MODE OF BALANCING PULLEYS.



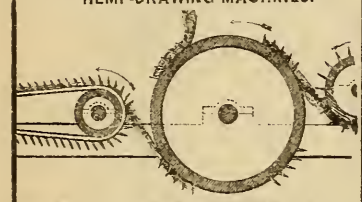
SAMUEL W. PHELPS. FRUIT-BOXES.
121,412



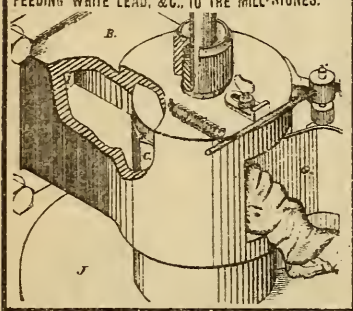


121,413
WILLIAM E. PHELPS.
COAL-CHUTES.

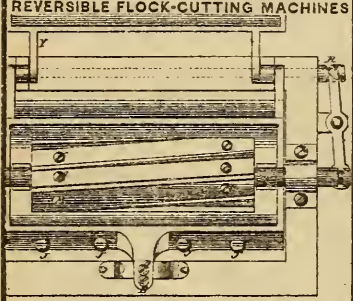
121,414 GEORGE W. PITTMAN.
HEMP-DRAWING MACHINES.



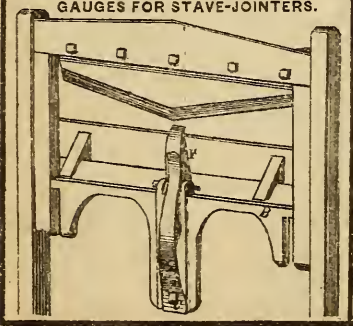
121,416 JAMES B. POLLOCK.
FEEDING WHITE LEAD, &C., TO THE MILL-STONES.

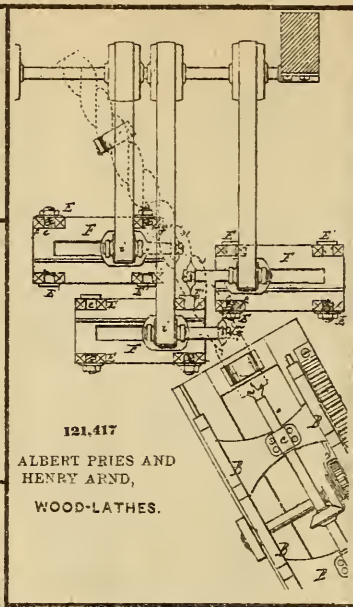


121,415 PITTS, ALDRICH, AND MAEBLE.
REVERSIBLE FLOCK-CUTTING MACHINES



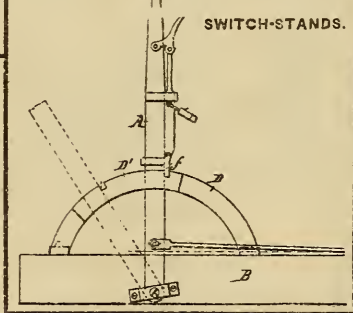
121,418 RACE AND HOOPER.
GAUGES FOR STAVE-JOINTERS.



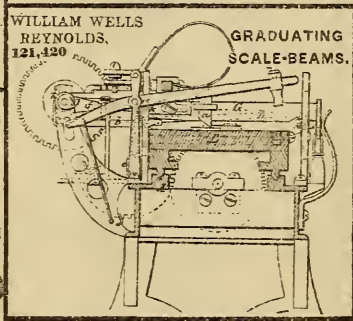


121,417
ALBERT PRIES AND
HENRY ARND,
WOOD-LATHES.

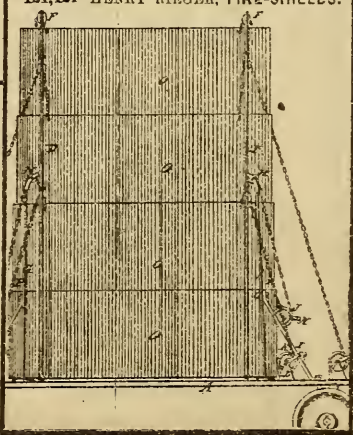
121,419
EZEKIEL F. REYNOLDS.
SWITCH-STANDS.



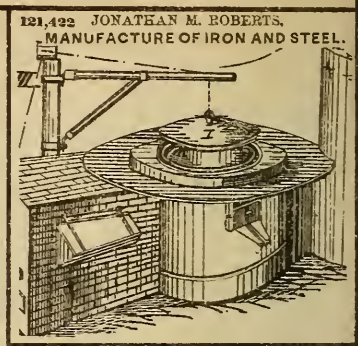
WILLIAM WELLS
REYNOLDS.
121,420
GRADUATING
SCALE-BEAMS.



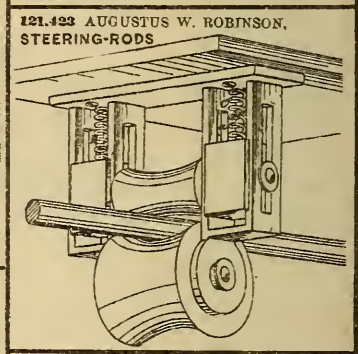
121,421 HENRY RIEGER. FIRE-SHIELDS.



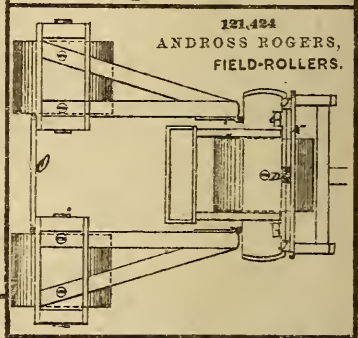
121,422 JONATHAN M. ROBERTS.
MANUFACTURE OF IRON AND STEEL.



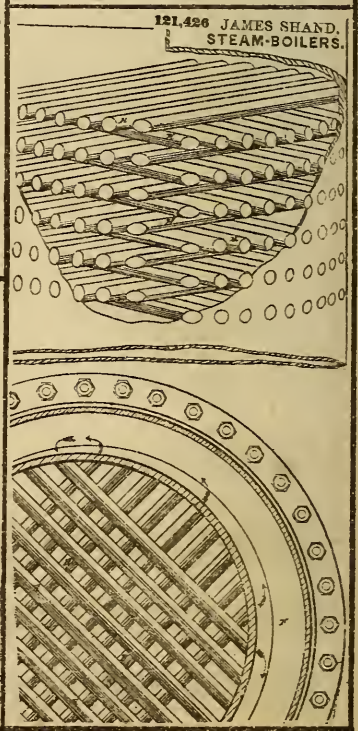
121,423 AUGUSTUS W. ROBINSON.
STEERING-RODS



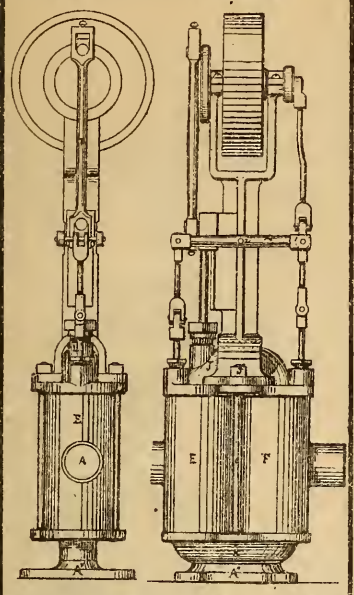
121,424
ANDROSS ROGERS,
FIELD-ROLLERS.



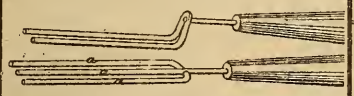
121,426 JAMES SHAND.
STEAM-BOILERS.



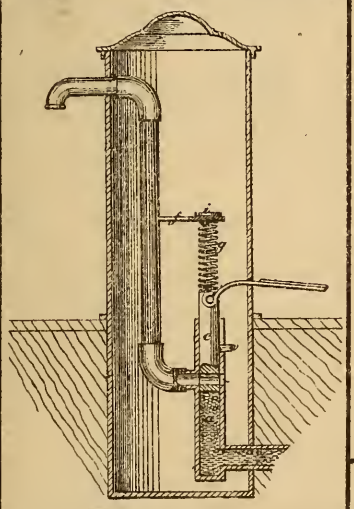
121,427 LORENZO D. B. SHAW,
STEAM OR WATER ENGINES.



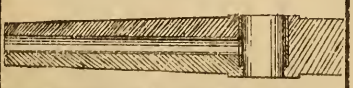
121,428 EDWIN R. SHEPARD.
FLUTING-TONGS.



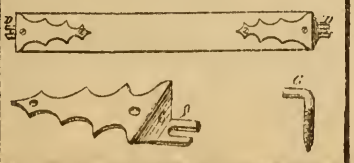
121,429 JAMES SMALL. HYDRANTS.



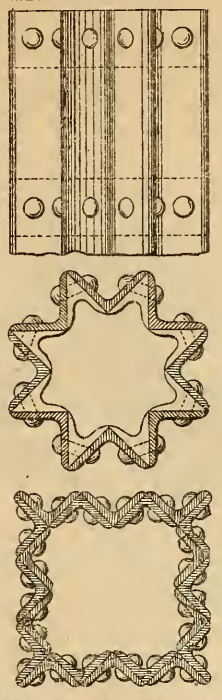
121,430 ALPHEUS D. SMITH.
FAUCETS.



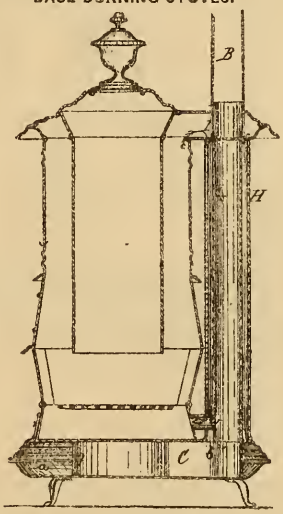
121,431 ELDRIDGE J. SMITH,
STAIR-RODS.



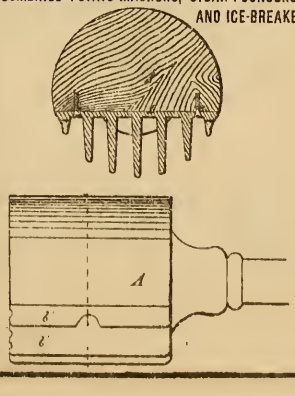
121,432 FREDERICK H. SMITH,
METALLIC COLUMNS.



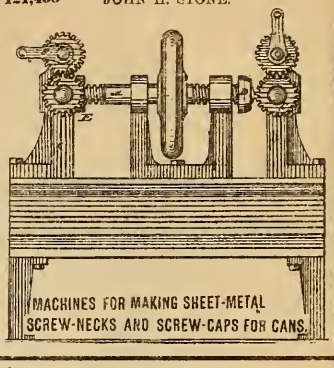
121,433 AUGUST SPITZMILLER,
BASE-BURNING STOVES.



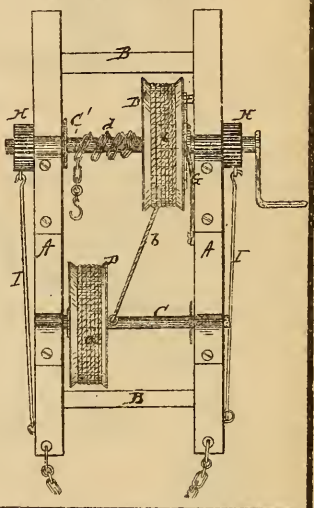
121,434 HENRY P. STICHTER,
COMBINED POTATO-MASHERS, STEAK-POUNDERS, AND ICE-BREAKERS.



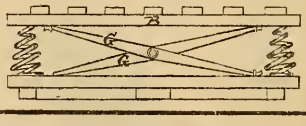
121,435 JOHN H. STONE.



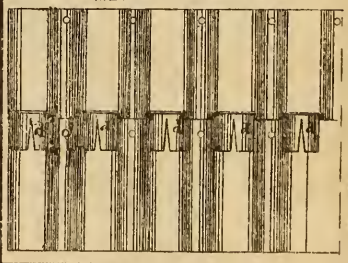
121,436 JOHN D. TROYER,
STUMP-EXTRACTORS.



JOHN C. WALKER AND WILLIAM LAPISH,
121,437 BED-BOTTOMS.



121,438 JOHN C. WANDS.
METALLIC ROOFINGS.



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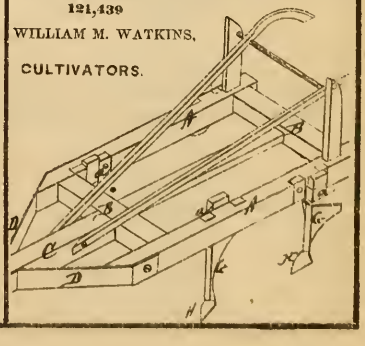
WILLIAM M. WATKINS,
CULTIVATORS.



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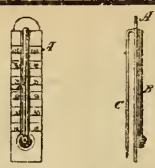
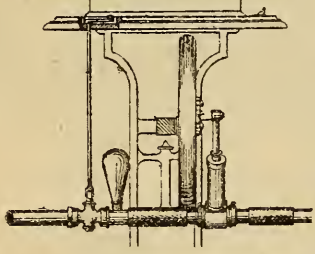
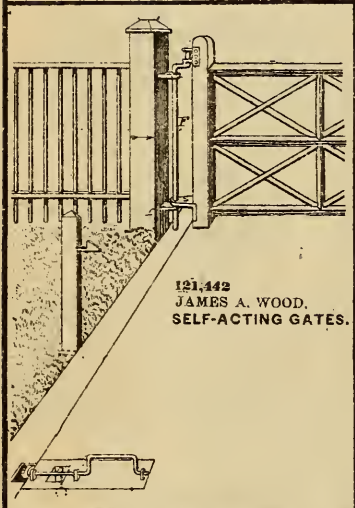
AUGUSTE WEILLER,
BREAST-PINS.



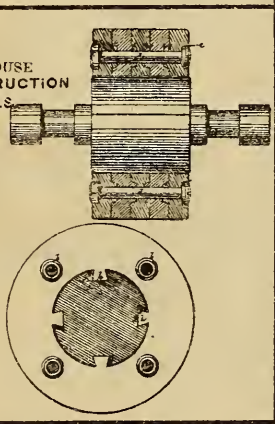
121,441
WELCH AND WELCH,
PNEUMATIC MOTORS FOR SEWING-MACHINES.



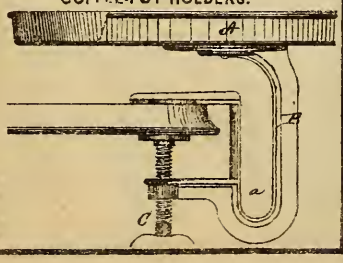


121,442
JAMES A. WOOD,
SELF-ACTING GATES.

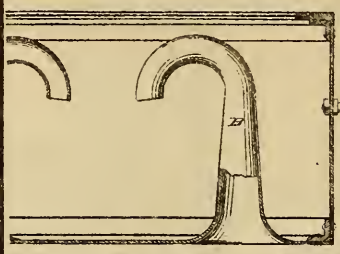
121,443
JOHN V. WOODHOUSE
CONSTRUCTION OF ROLLS.



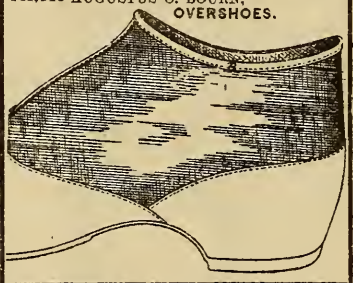
121,444 WOODS AND LESEMAN,
COFFEE-POT HOLDERS.



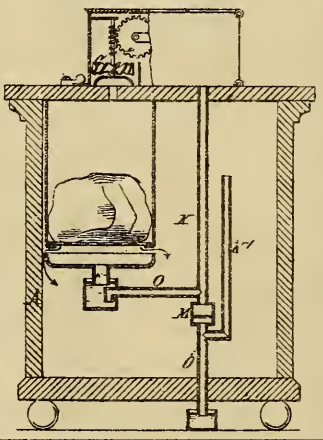
121,445 ALBERT ZIPSER,
STEAM-BOILER SEDIMENT-COLLECTORS



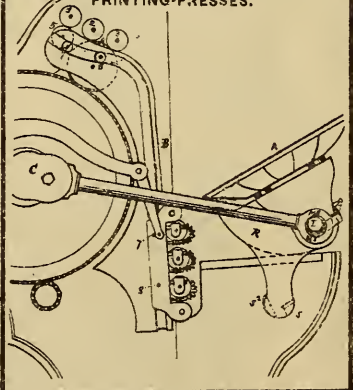
121,446 AUGUSTUS O. BOURN,
OVERSHOES.



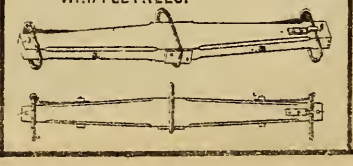
4,645 ANDREW FULLER AND LOUIS P. REICHERT, REFRIGERATORS.



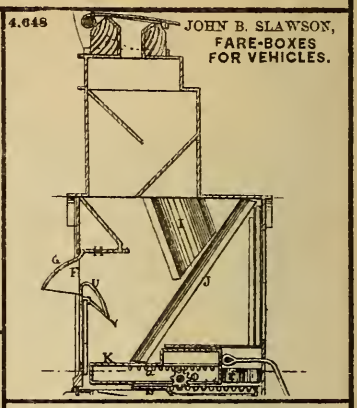
4,646 MERRITT GALLY,
PRINTING-PRESSES.



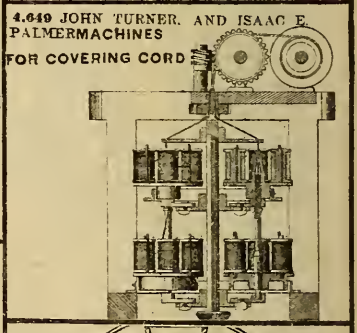
4,647 GEORGE GIBBS AND WILLIAM GIBBS
WHIFFLETREES.

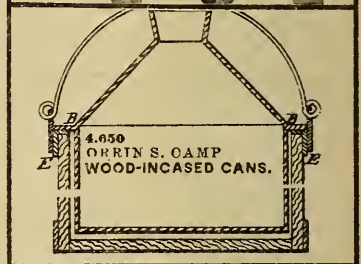


4,648 JOHN B. SLAWSON,
FARE-BOXES FOR VEHICLES.



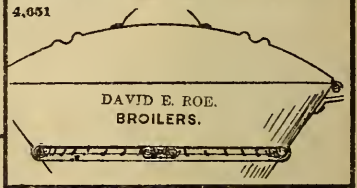
4,649 JOHN TURNER, AND ISAAC E. PALMER MACHINES
FOR COVERING CORD.





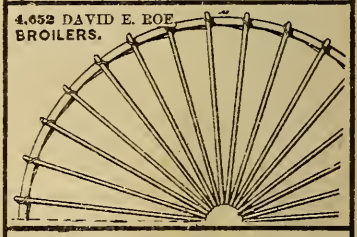
4,650
ORRIN S. CAMP
WOOD-INCASED CANS.

4,651

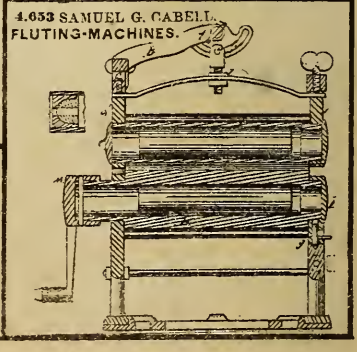


DAVID E. ROE.
BROILERS.

4,652 DAVID E. ROE,
BROILERS.



4,653 SAMUEL G. CABELL,
FLUTING-MACHINES.



ILLUSTRATIONS OF PATENTS
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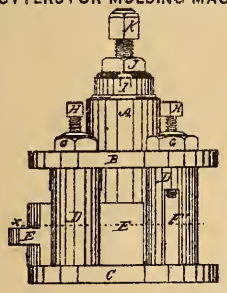
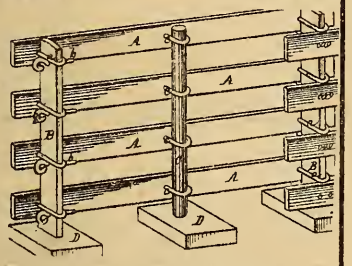
THE UNITED STATES PATENT OFFICE
DECEMBER 5, 1871.

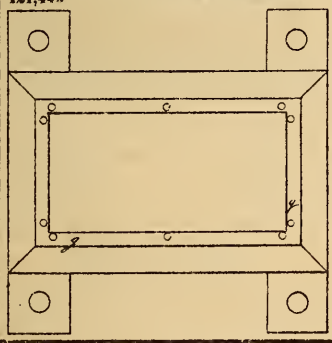
121,447 EDWIN BENJAMIN,
CUTTERS FOR MOLDING-MACHINES.



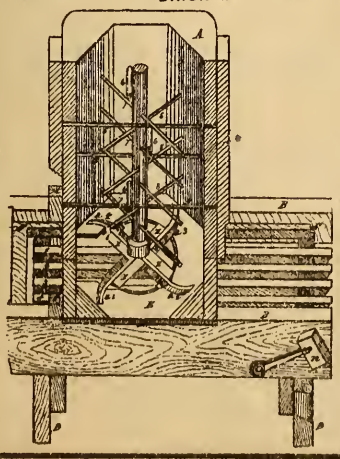
121,448 CORTLAND E. BROWN,
FENCES.



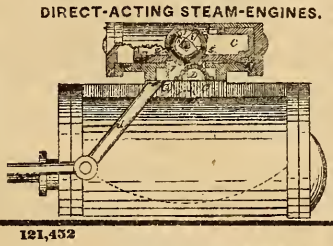
121,449 GEORGE CARNELL,
ERICK-MOLDS.



121,450 JACOB COOKE,
BRICK-MACHINES.

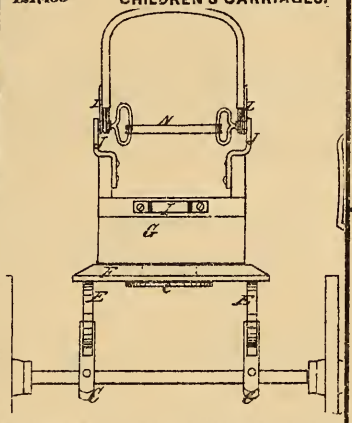


121,451 CHARLES P. DEANE,
DIRECT-ACTING STEAM-ENGINES.

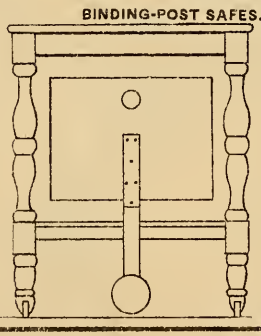


121,452 JEAN CHRYSOSTOME DESUMEUR,
FASTENING DRIVING-BELTS.

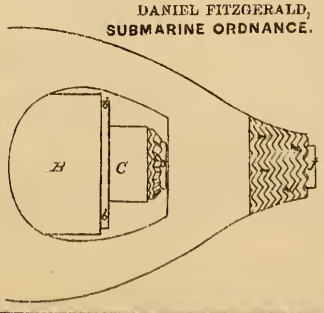
121,453 EDWIN FALKINGHAM,
CHILDREN'S CARRIAGES.



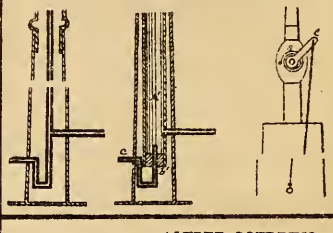
121,454 DANIEL FITZGERALD,
BINDING-POST SAFES.



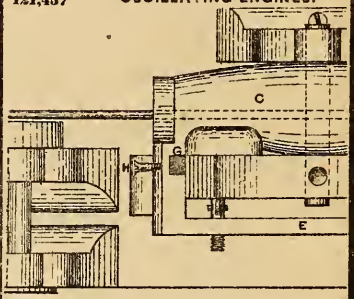
121,455 DANIEL FITZGERALD,
SUBMARINE ORDNANCE.



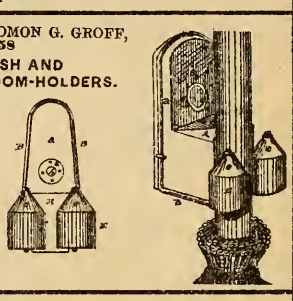
121,456 SIMON W. FRANCE,
STREET GAS-LAMP POSTS.



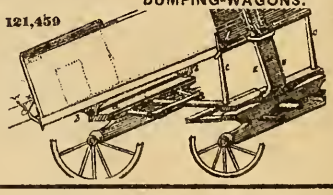
121,457 ALFRED GOULDING,
OSCILLATING ENGINES.



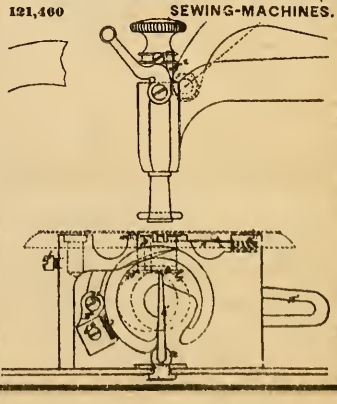
121,458 SOLOMON G. GROFF,
BRUSH AND BROOM-HOLDERS.



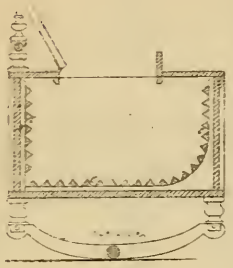
121,459 ANTHONY ISKE,
DUMPING-WAGONS.



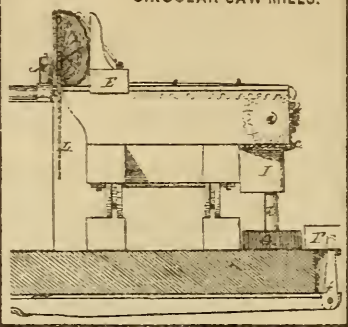
121,460 MICHAEL HEINRICH KERNAUL,
SEWING-MACHINES.



121,461 CHARLES LABRABEE.
WASHING-MACHINES.

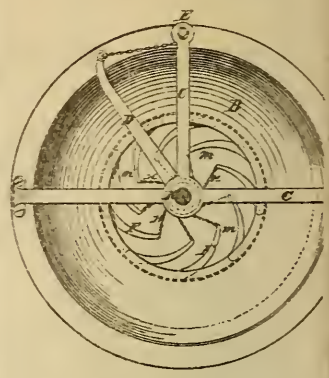


121,466 LEWIS C. PATTEE.
CIRCULAR-SAW MILLS.

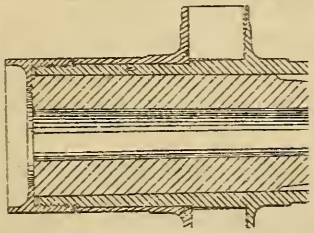


121,467 PHILIPP PAUL.
MEDICAL COMPOUNDS OR EYE-WASHES.

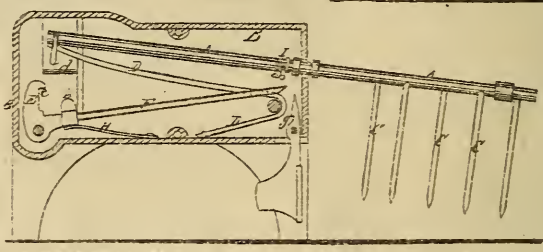
121,472 BENJAMIN REDDING.
WATER-WHEELS.



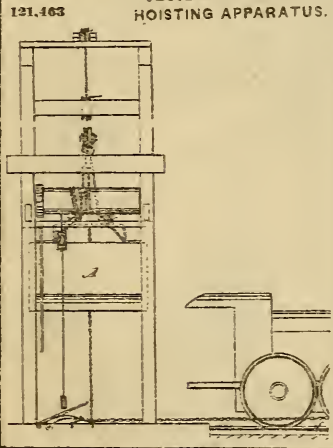
121,462 JOHN MONK.
METALLIC HUBS FOR WHEELS.



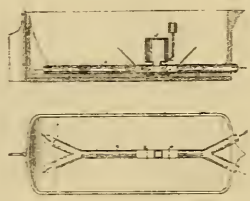
121,468 HENRY POLLEY, ANIMAL-TRAPS.



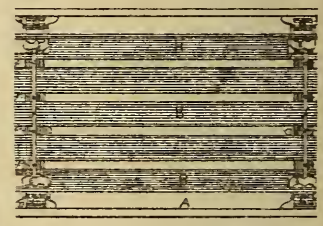
121,463 JESSE NICHOLSON.
HOISTING APPARATUS.



121,469 PRALL AND DEFREES,
CANAL-BOATS.

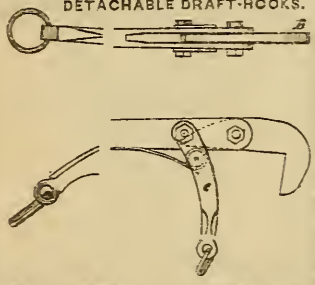


121,473 REUBEN A. SMITH.
BED-BOTTOMS.

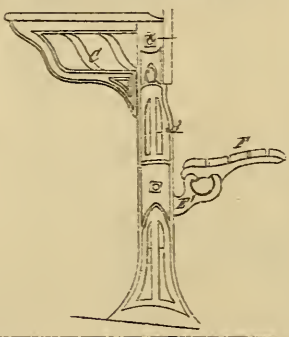


121,474 CHARLES LOUIS THIERY,
MACHINES FOR MAKING WATCH-CASES.

121,464 JESSE NICHOLSON,
DETACHABLE DRAFT-HOOKS.

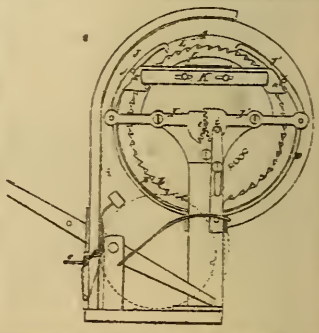


121,470 JAMES S. RANKIN
SCHOOL-DESKS AND SEATS.

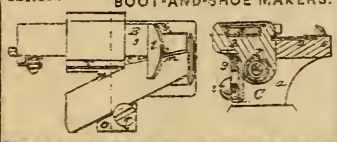


121,475 HENRY VANDER WEYDE.
MODE OF APPLYING
TINTS TO PHOTOGRAPHS.

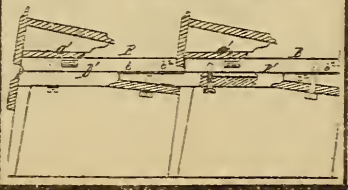
WARNER AND JAMES W. BENHAM,
121,476 STATION-INDICATORS.



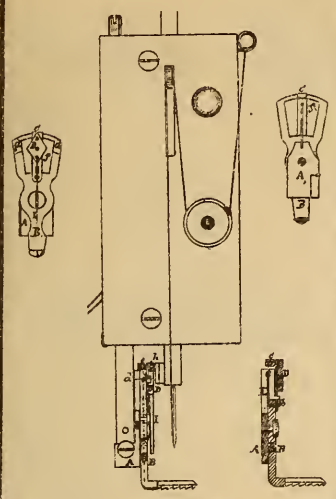
ARON JAMES PARKER.
121,465 EDGE-PLANES FOR
BOOT-AND-SHOE MAKERS.



121,471 JAMES S. RANKIN,
DEVICES FOR SUPPORTING
AND CONNECTING SCHOOL-DESKS.

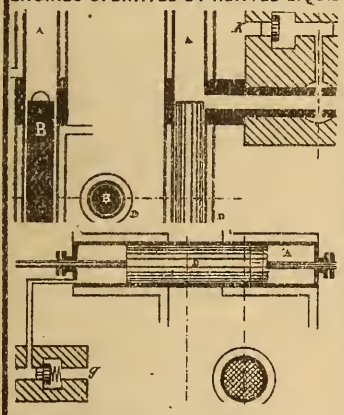


121,477 JOHN N. WILKINS,
SEWING-MACHINES.



121,478 DAMEN R. AVERILL,
MANUFACTURE OF PAINTS.

121,479 JAMES S. BALDWIN,
ENGINES OPERATED BY HEATED LIQUIDS



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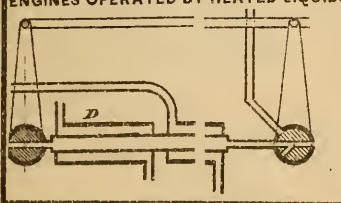
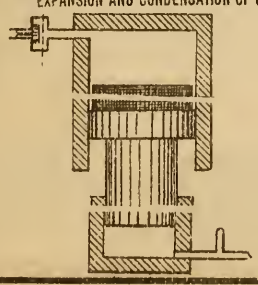
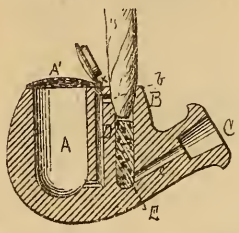
121,481 JAMES S. BALDWIN,
ENGINES OPERATED BY HEATED LIQUIDS



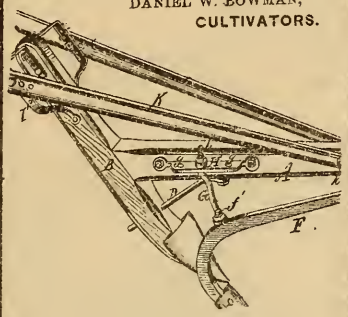
121,482 JAMES S. BALDWIN,
APPARATUS FOR FORCING LIQUIDS BY THE EXPANSION AND CONDENSATION OF GASES.



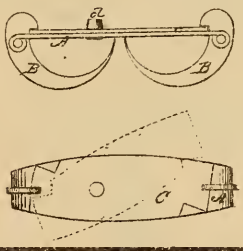
121,483 VIRGIL A. BOND,
PIPES AND CIGAR-HOLDERS.



121,484 DANIEL W. BOWMAN,
CULTIVATORS.

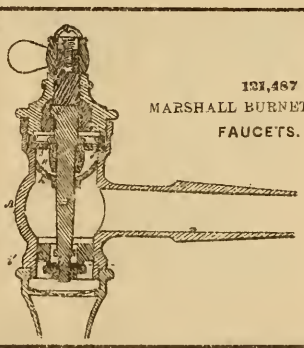


121,485 WILLIAM H. BROCK,
SAFETY-PINS.

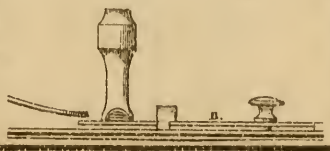


121,486 GEORGE BUNTIN,
CAR-SEAT FRAMES.

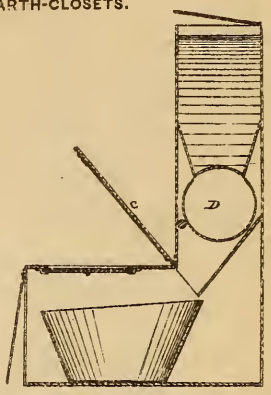
121,487 MARSHALL BURNETT.
FAUCETS.



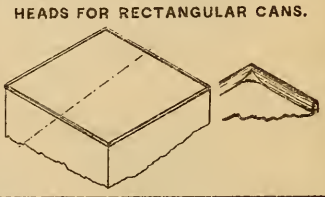
121,488 RICHARD G. BUSH,
TUCK-FOLDING ATTACHMENTS FOR SEWING-MACHINES.



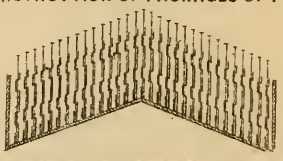
121,489 DENNIS B. COLLINS,
EARTH-CLOSETS.



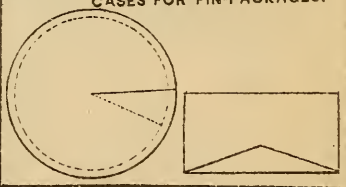
121,490 EDWARD T. COVELL,
HEADS FOR RECTANGULAR CANS.



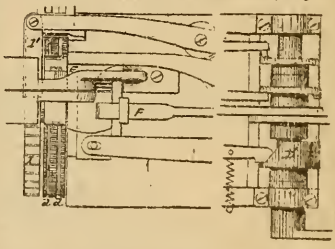
121,491 CHAUNCY O. CROSBY,
CONSTRUCTION OF PACKAGES OF PINS.



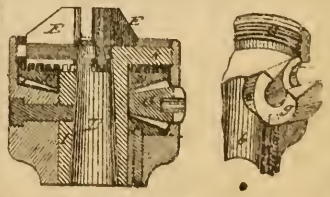
121,492 CHAUNCY O. CROSBY,
CASES FOR PIN-PACKAGES.



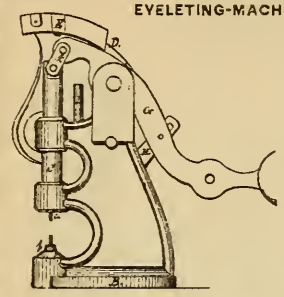
120,403 CHAUNCY O. CROSBY
MACHINES FOR STICKING PINS



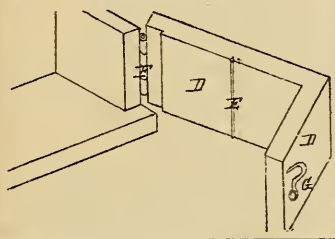
121,494 AUSTIN F. CUSHMAN,
CHUCKS FOR METAL TURNING-LATHES.



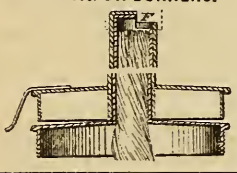
121,495 ADOLPH DELKESCAMP.
EVELETING-MACHINES.



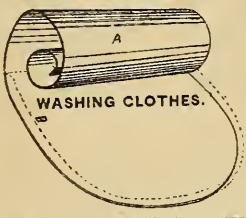
121,496 ANTHONY J. DERRICK,
BUTTER-MOLDS.



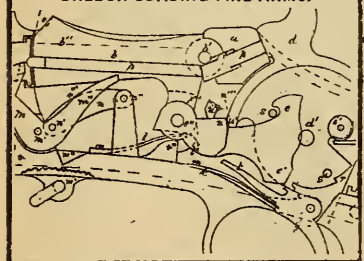
121,497 TRUMAN P. DOANE,
VAPOR-BURNERS.



121,498 GEORGE W. DOTY.
KNUCKLE-PROTECTORS FOR
WASHING CLOTHES.

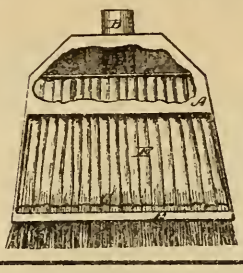


121,499 WILLIAM H. ELLIOT,
BREECH-LOADING FIRE-ARMS.

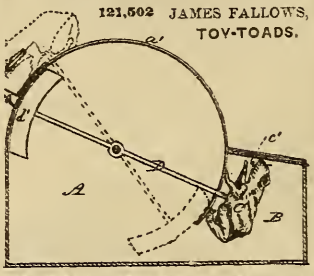


ENGLEBERT AND VON NIEDA,
121,500 ICE-PITCHERS.

121,501 THOMAS R. EVANS, BROOMS.

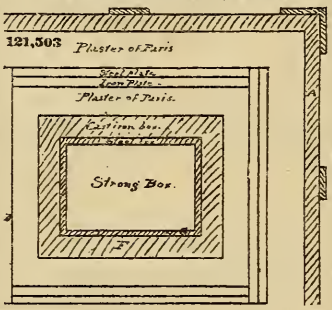


121,502 JAMES FALLOWS,
TOY-TOADS.

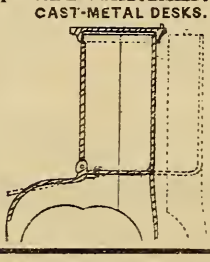


DANIEL FITZGERALD. SAFES.

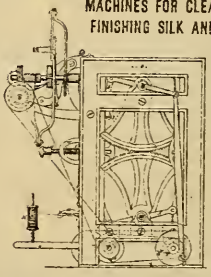
121,503



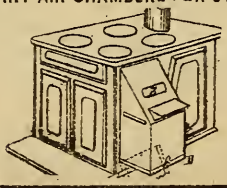
121,504 DANIEL FITZGERALD.
CAST-METAL DESKS.



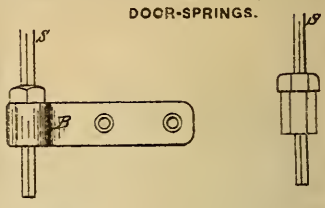
121,505 CHRISTOPHER L. FRINK,
MACHINES FOR CLEANING AND
FINISHING SILK AND THREAD.



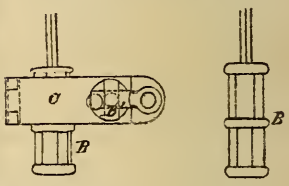
121,506 JOHN H. GOODFELLOW.
AUXILIARY AIR-CHAMBERS FOR STOVES



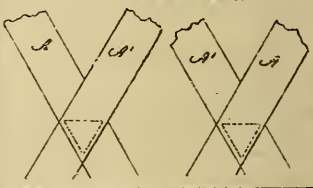
121,507 WILLIAM M. GRAY,
DOOR-SPRINGS.



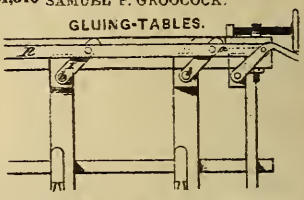
121,508 WILLIAM M. GRAY,
DOOR-SPRINGS.



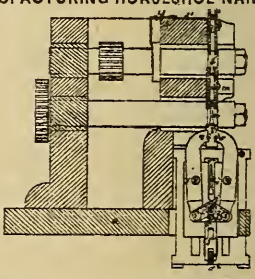
121,509 HENRY C. GRIGGS,
SUSPENDERS.



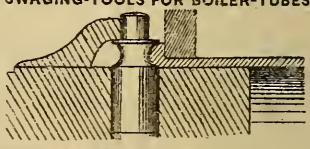
121,510 SAMUEL P. GROOCOCK.
GLUING-TABLES.



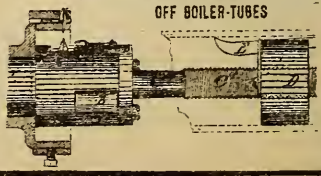
121,511 GEORGE L. HALL,
MANUFACTURING HORSESHOE-NAILS.



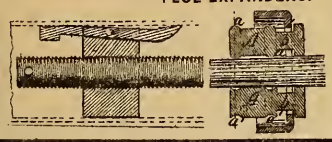
121,512 IRA S. HAMILTON.
SWAGING-TOOLS FOR BOILER-TUBES.



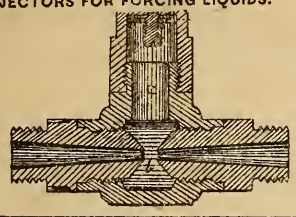
121,513 IRA S. HAMILTON,
TOOLS FOR EXPANDING AND CUTTING
OFF BOILER-TUBES



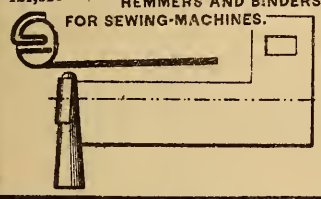
121,514 IRA S. HAMILTON, FLUE-EXPANDERS.



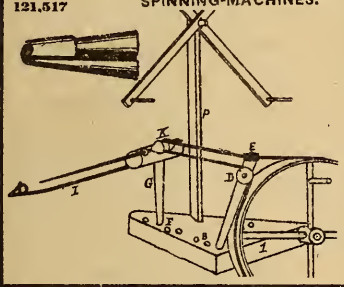
121,515 JOHN T. HANCOCK, EJECTORS FOR FORCING LIQUIDS.



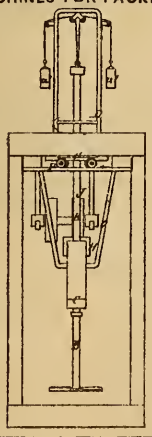
121,516 MILO HARRIS, HEMMERS AND BINDERS FOR SEWING-MACHINES.



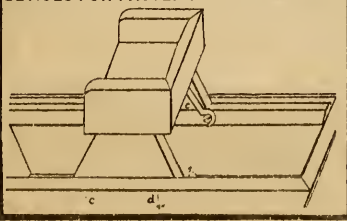
121,517 GEORGE H. HATHORN, SPINNING-MACHINES.



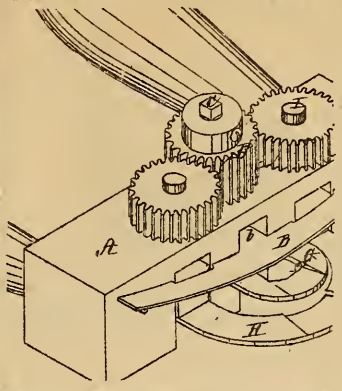
121,518 CORNELIUS E. HAYNES, MACHINES FOR PACKING SUGAR.



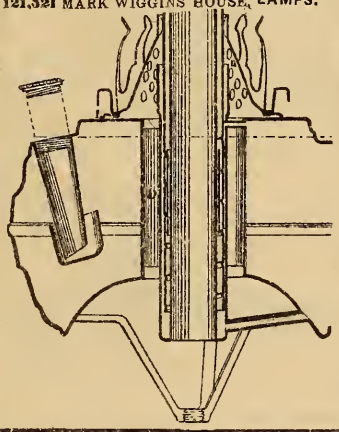
121,519 GARET G. HEERMANCE, DEVICES FOR FASTENING WAGON-SEATS



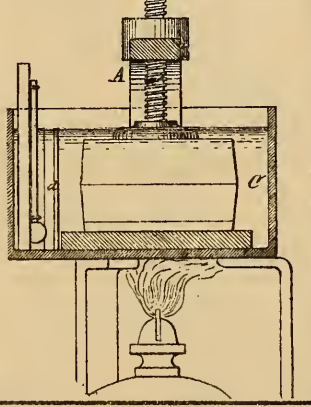
121,520 FRANK E. HIBBARD, DEVICES FOR CUTTING WHALEBONE.



121,521 MARK WIGGINS HOUSE, LAMPS.



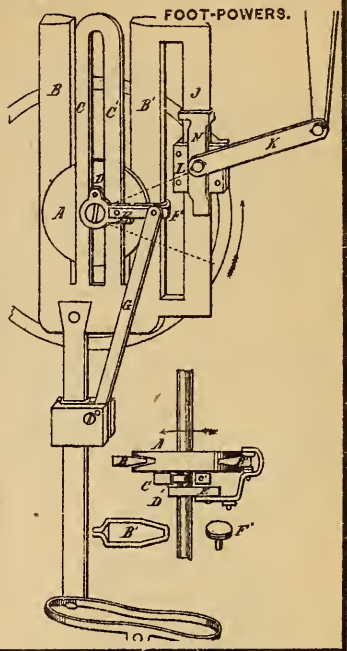
121,522 JOHN W. HYATT, JR., APPARATUS FOR MOLDING DENTAL-PLATES.



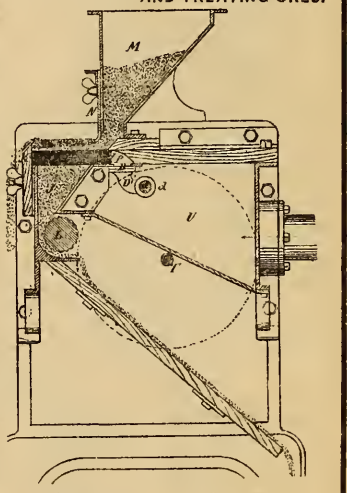
121,523 CHARLES L. JONES, COMPOUNDS FOR CURE OF HOG CHOLERA.

121,524 JOHN STAFFORD KELLY, PAVEMENTS.

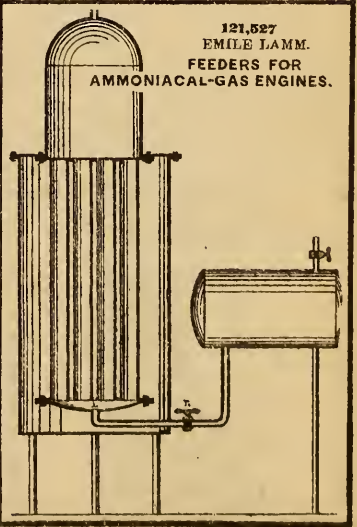
121,525 GEORGE BYRON KIRKHAM FOOT-POWERS.



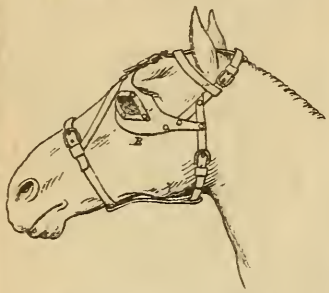
121,526 STEPHEN R. KROM, MACHINES FOR SEPARATING AND TREATING ORES.



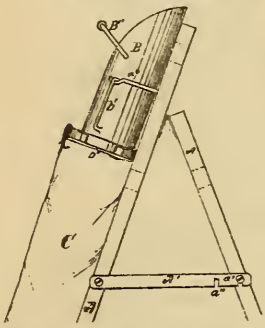
121,527 EMILE LAMM. FEEDERS FOR AMMONIACAL-GAS ENGINES.



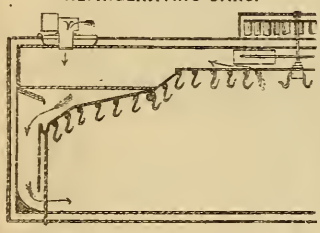
JOHN B. LOW. 121,528
BRIDLE-BLINDERS FOR HORSES.



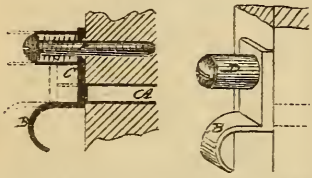
121,529 WILLIAM F. LUM.
BAG-HOLDERS AND FILLERS.



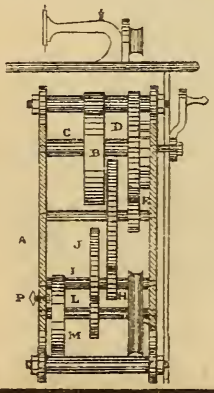
121,530 AZEL STORRS LYMAN,
REFRIGERATING-CARS.



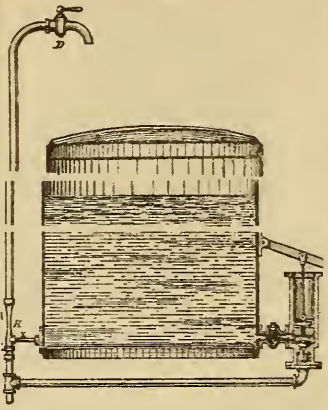
121,531 WILLIAM W. LYMAN,
SASH-HOLDERS.



121,532 JAMES A. MACAULEY.
MOTORS FOR SEWING-MACHINES.

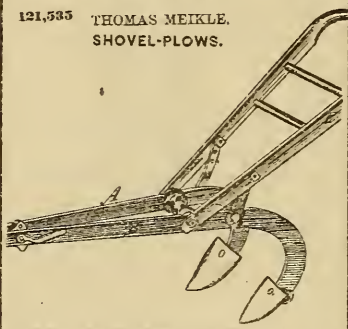


121,533 PHILIP W. MACKENZIE,
PNEUMATIC WATER-ELEVATORS.



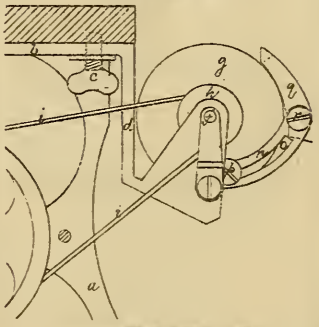
121,534 NATHAN McKELFRESH,
CURE OF CANCER.

121,535 THOMAS MEIKLE.
SHOVEL-PLOWS.

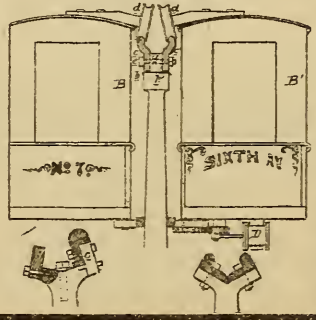


121,536 ALEXANDER MILES.
CLEANSING THE HAIR.

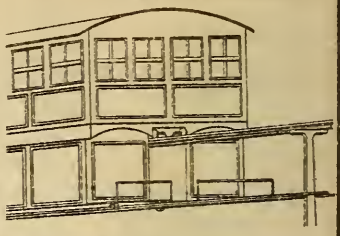
121,537 RUSSELL S. MORSE.
SCISSORS-GRINDING ATTACHMENTS
FOR SEWING-MACHINES.



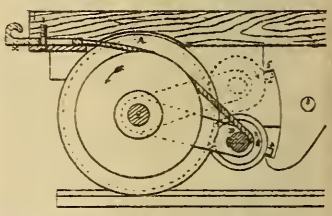
121,538 JOHN B. NEWBROUGH.
ELEVATED RAILWAYS.



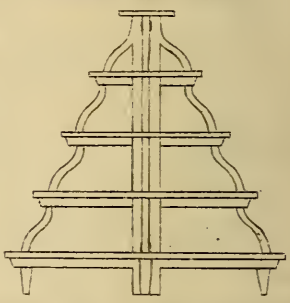
121,539 JOHN B. NEWBROUGH,
CARS FOR ELEVATED RAILWAYS.



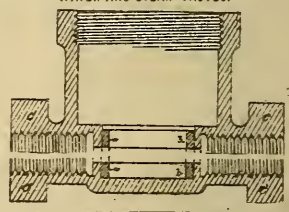
121,540 JOHN NORTH,
CAR-STARTERS.



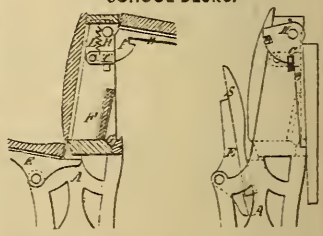
121,541 BENJAMIN B. NOURSE,
FOLDING PLANT-STANDS.



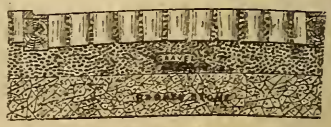
PEET AND WILLIS 121,542
PROCESSES OF CONSTRUCTING
WATER AND STEAM VALVES.



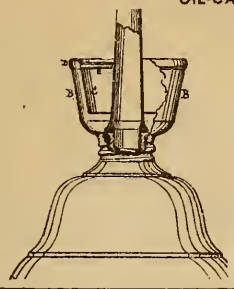
121,543 ISAAC NEWTON PEIRCE,
SCHOOL-DESKS.



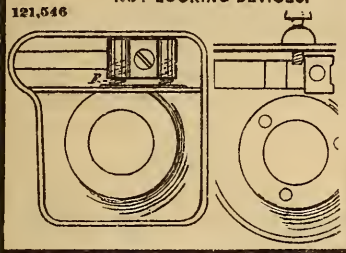
121,544 ROBERT C. PHILLIPS,
WOODEN PAVEMENTS.



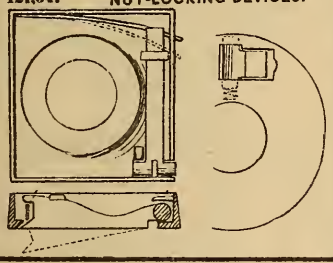
121,545 GILBERT STEWART PRIOR, OIL-CANS.



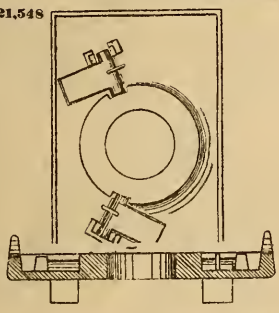
121,546 HADWEN L. PURDIE, NUT-LOCKING DEVICES.



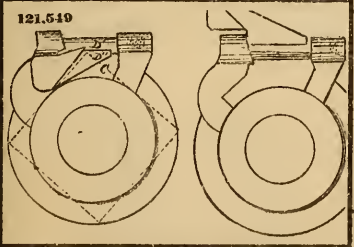
121,547 HADWEN L. PURDIE, NUT-LOCKING DEVICES.



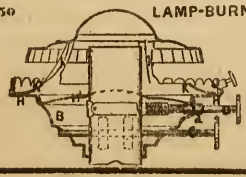
121,548 HADWEN L. PURDIE, NUT-LOCKING DEVICES.



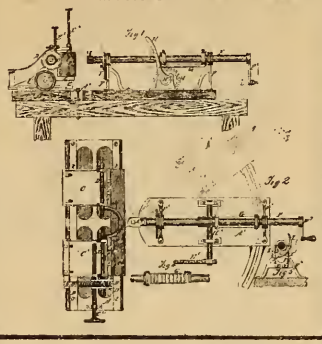
121,549



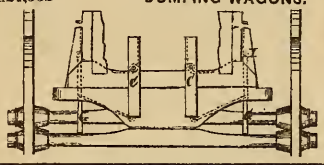
121,550 FAYETTE S. ROBINSON, LAMP-BURNERS.



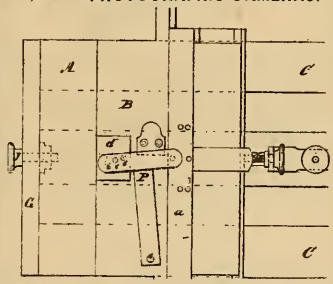
121,551 ENOCH J. ROWE. MORTISING-MACHINES.



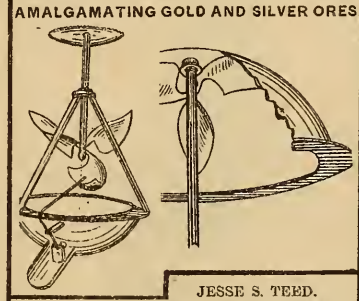
121,552 LEXOR B. SNOW. DUMPING-WAGONS.



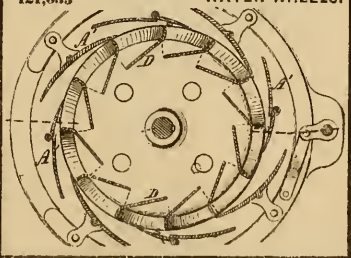
121,553 JOHN STOCK AND JACOB STOCK, PHOTOGRAPHIC CAMERAS.



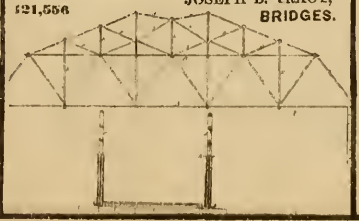
121,554 PERCIVAL T. G. STOCKMAN, AMALGAMATING GOLD AND SILVER ORES.



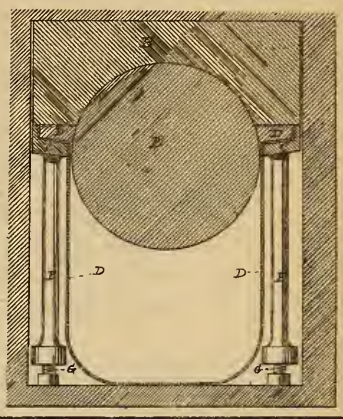
121,555 JESSE S. TEED. WATER-WHEELS.



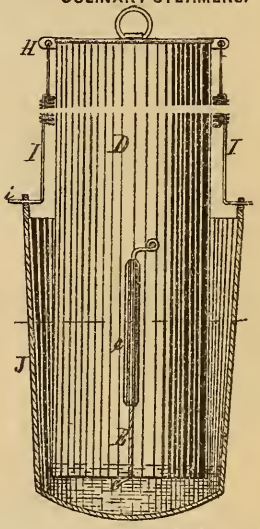
121,556 JOSEPH B. TRAOY, BRIDGES.



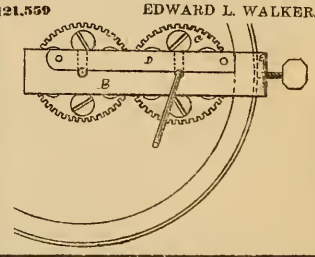
121,557 STEPHEN USTICK. LUBRICATORS FOR CAR-JOURNALS.



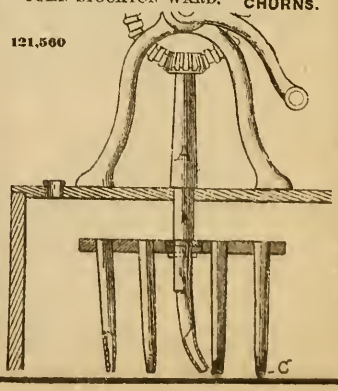
121,558 CHARLES E. WAHLGREN, CULINARY STEAMERS.



121,559 BUTTER-WORKERS. EDWARD L. WALKER.



121,560 JOHN STOCKTON WARD. CHURNS.

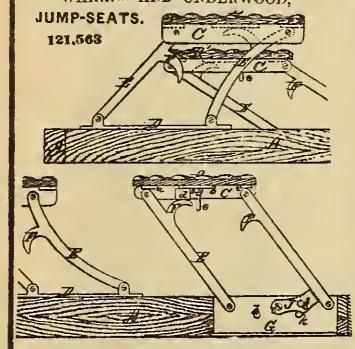


121,561 WILLIAM HENRY WARD, TELEGRAPH-SIGNALS.

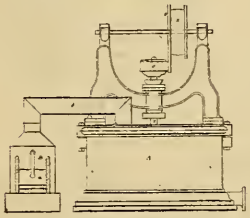
121,562

KNITTING-NEEDLES.
RIVETING LATCH
CHARLES P. S. WARDWELL.

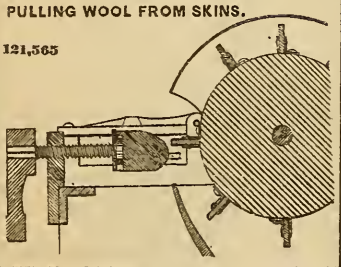
WARREN AND UNDERWOOD, JUMP-SEATS.
121,563



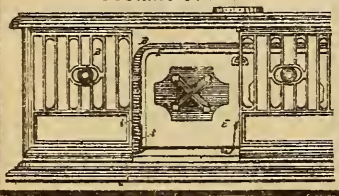
121,564 JULES WATTEAU, BLEACHING WOOL.



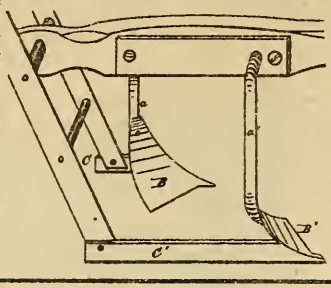
JULES WATTEAU, PULLING WOOL FROM SKINS.
121,565



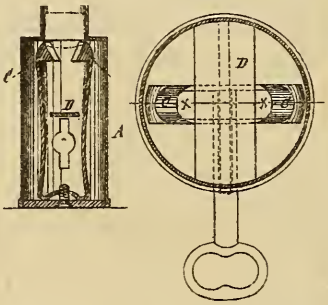
121,566 JEREMIAH A. WEAKLEY, COOKING-STOVES.



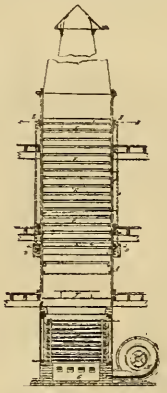
121,567 WILLIAM YOST, PLOWS.



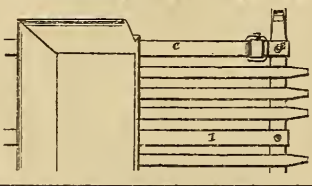
121,568 FRANK ADAMS, WHIP-SOCKETS.



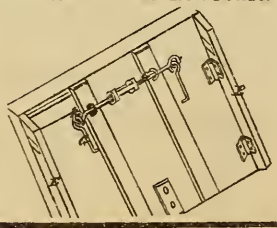
121,569 CHARLES ALDEN, APPARATUS FOR DRYING AND PRESERVING ANIMAL AND VEGETABLE SUBSTANCES.



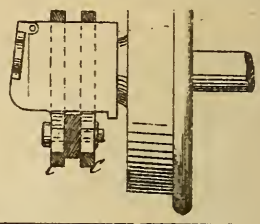
121,570 TRUMAN H. ALLEN, ATTACHING SPRINGS TO VEHICLES.



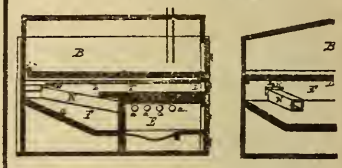
121,571 ANSON R. AMBROSE. WAGON AND SLEIGH BOXES.



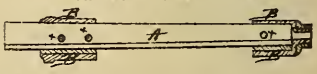
121,572 WILLIAM S. AUCHINCLOSS. RAILWAY-CAR AXLE-BOXES.



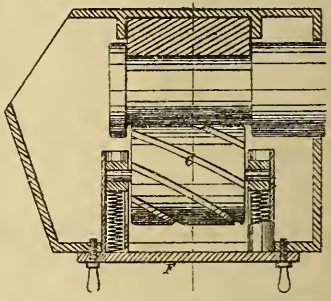
121,573 GEORGE E. BAILEY, BAKERS' OVENS.



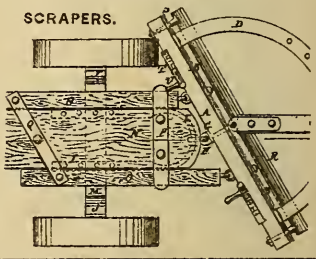
121,574 EPHRAIM BALL, JR., AXLES FOR VEHICLES.



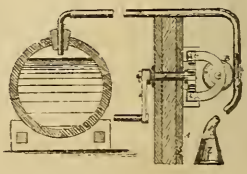
121,575 JOSEPH BARBER, LUBRICATORS FOR CAR-AXLES.



121,576 GEORGE W. BAYLY, SCRAPERS.

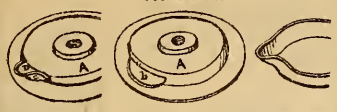


121,577 FRANZ BLUEHER, PRESERVING AND FORCING BEER WITH COLD AIR.

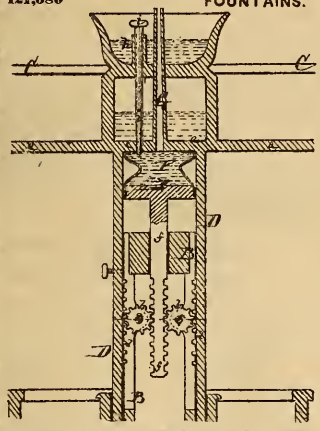


CORNELIUS BLOM, JR., AND JOHN ALING,
121,578 BROOM-HEADS.

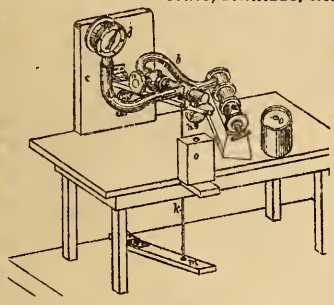
121,579 JABEZ A. BOSTWICK, TAPS FOR OIL-CANS.



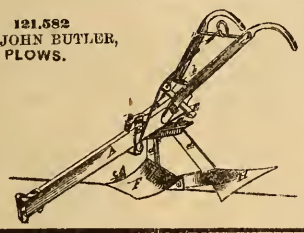
121,580 HENRY BROEZEL, FOUNTAINS.



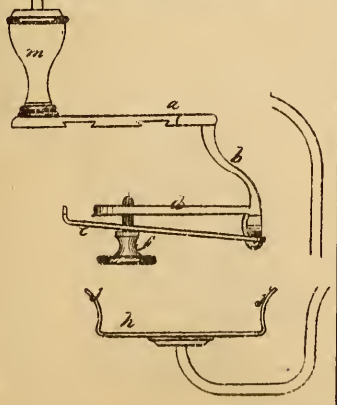
121,581 WILLIAM D. BROOKS, APPARATUS FOR TESTING CANS, BARRELS, &c.



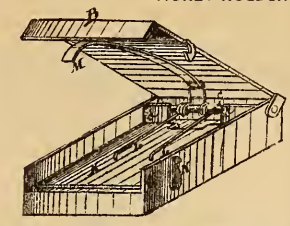
121,582 JOHN BUTLER, PLOWS.



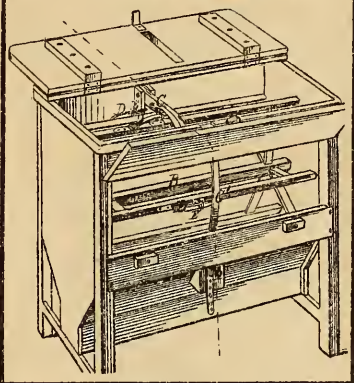
121,583 HENRY CAMPBELL, LAMP-BRACKETS OR SUPPORTS.



121,584 WILLIAM JAMES CAMPBELL, TICKET-HOLDERS.

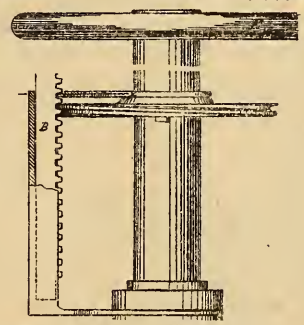


121,585 CHARLES EDWIN CANAN, FLOUR-BOLT VIBRATORS.

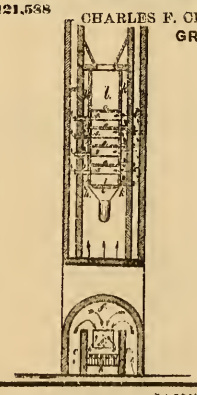


121,586 JOHN F. CAVARLY, PURIFYING ACETIC ACID.

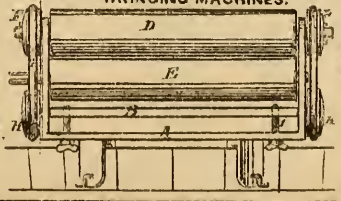
121,587 JOHN C. CHAPMAN, VALVE-INDICATORS.



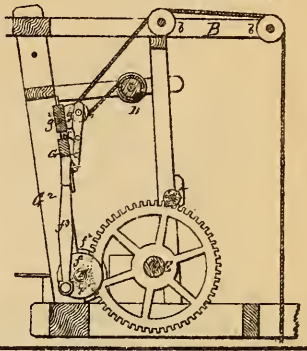
121,588 CHARLES F. CHICHESTER, GRAIN-DRIERS.



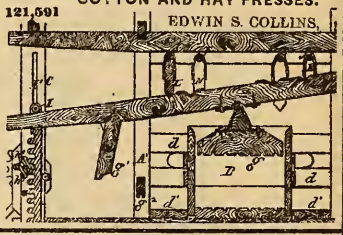
121,589 JAMES M. CLARK, WRINGING-MACHINES.



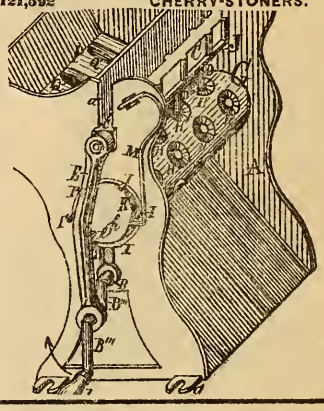
121,590 COATE AND JOHN, ROCK-DRILLING MACHINES.



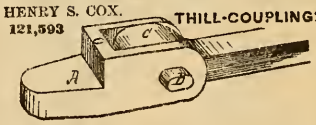
121,591 COTTON AND HAY PRESSES. EDWIN S. COLLINS,



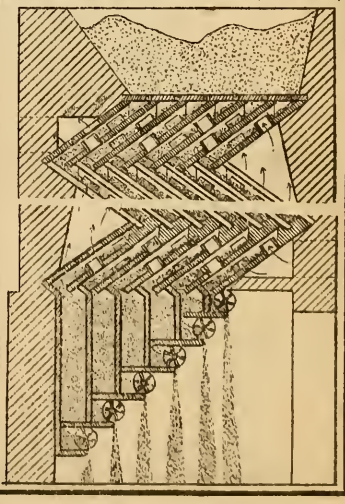
121,592 ABNER M. COMSTOCK, CHERRY-STONERS.



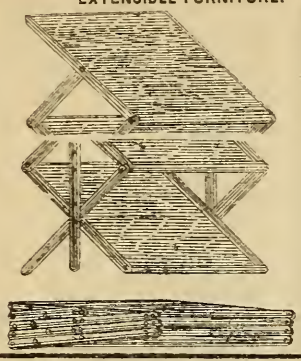
121,593 HENRY S. COX, THILL-COUPLINGS.



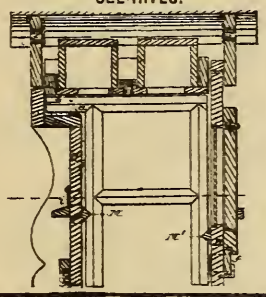
121,595 HENRY DEACON, MANUFACTURE OF BLEACHING-POWDERS, SULPHATES,



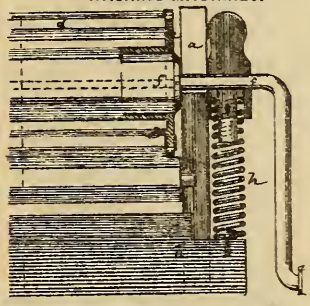
121,596 JOSEPH MASON DENNIS, EXTENSIBLE FURNITURE.



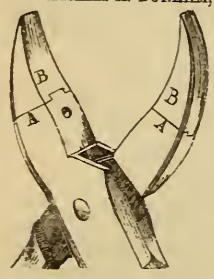
121,597 AARON F. DICKEY, BEE-HIVES.



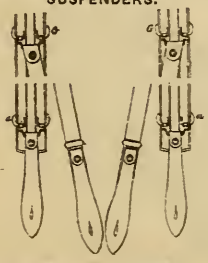
121,598 OSCAR L. DORR, WASHING-MACHINES.



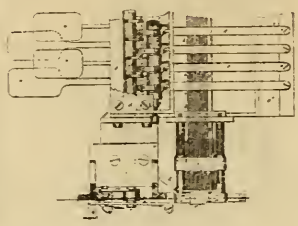
121,599 DENTAL FORCEPS. NEPHTHALI A. DURHAM,



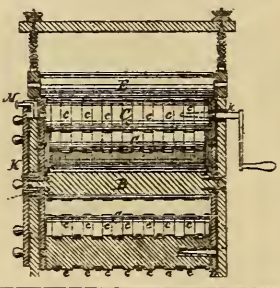
121,600 ROBERT HENRY EDDY, SUSPENDERS.



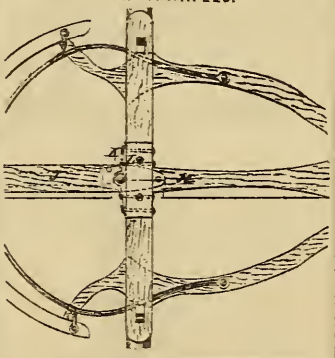
121,601 THOMAS A. EDISON, PERFORATING PAPER FOR TELEGRAPHIC PURPOSES.



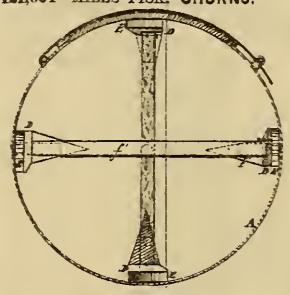
121,602 GEORGE H. FAYMAN, MACHINES FOR PRINTING MAIL-TAGS.



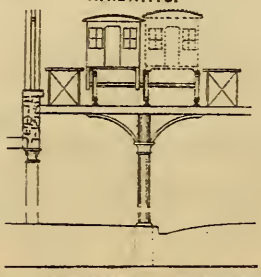
121,603 AMAZIAH FINLEY, FIFTH-WHEELS.



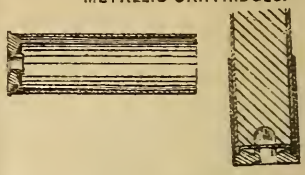
121,604 MILES FISK, CHURNS.



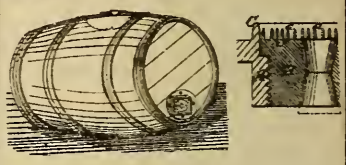
121,605 DANIEL FITZGERALD, RAILWAYS.



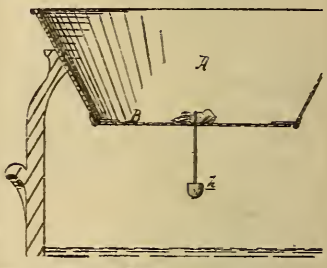
121,606 FOREHAND AND WADSWORTH, METALLIC CARTRIDGES.



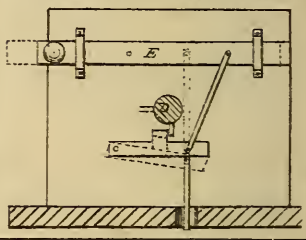
121,607 VINCENT FOUNTAIN, JR., BUNGS.



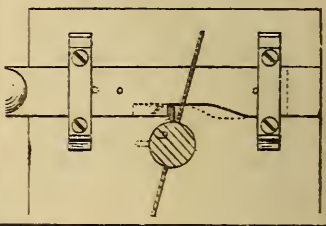
121,608 DUDLEY M. FRANCISCO, ANIMAL-TRAPS.



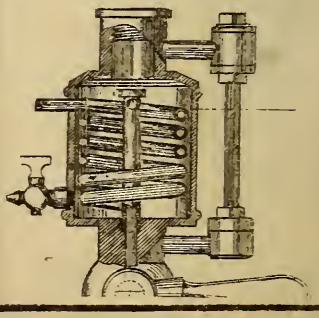
121,609 LEVI K. FULLER, TREMOLOS FOR REED ORGANS.



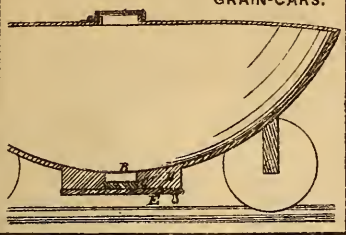
121,610 LEVI K. FULLER, TREMOLOS FOR REED-ORGANS.



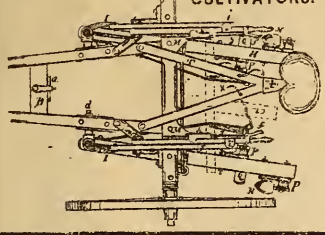
121,611 WILLIAM T. GARRATT, LUBRICATORS.



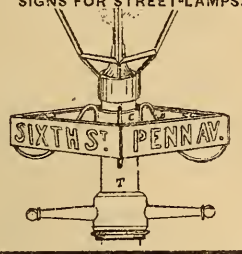
121,612 ALPHONSO E. GORDON
GRAIN-CARS.



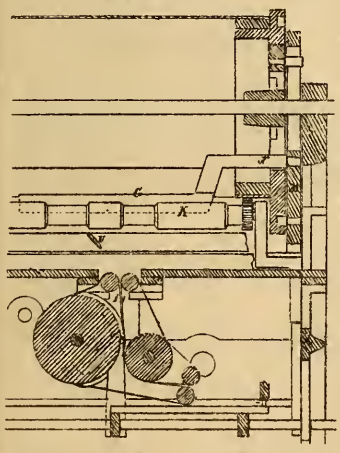
121,613 MARQUIS L. CORHAM,
CULTIVATORS.



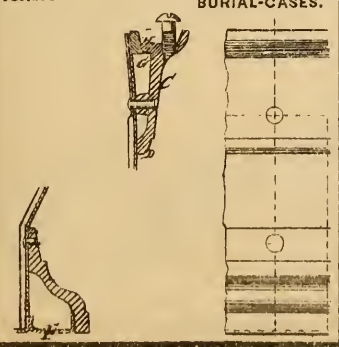
121,614
GRAHAM, SNYDER, AND O'BRIEN.
SIGNS FOR STREET-LAMPS.



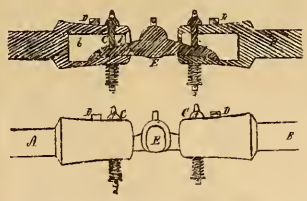
121,615 RICHARD R. GUBBINS,
PAPER-FOLDING MACHINES.



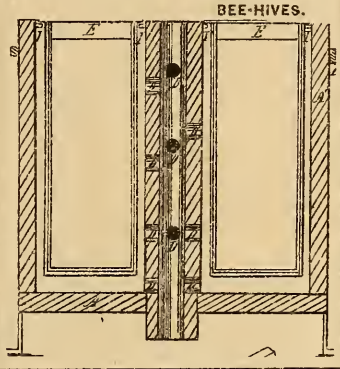
121,616 JOSEPH HACKETT.
BURIAL-CASES.



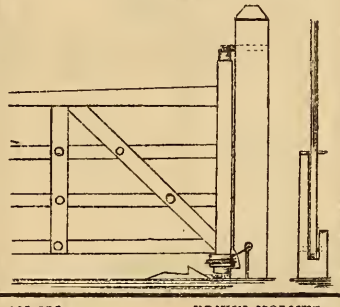
121,617 HALLETT AND HALLETT.
CAR-COUPLINGS.



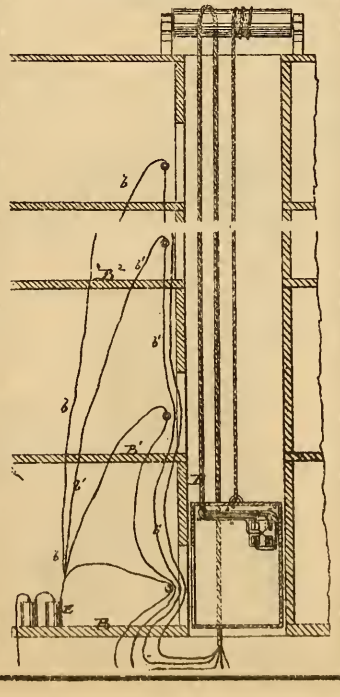
121,618 JASPER N. HIERONYMUS,
BEE-HIVES.



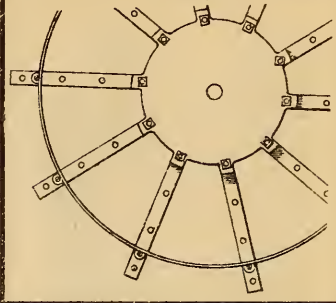
121,619 ALBERT N. HOLMES.
SELF-OPERATING GATES.



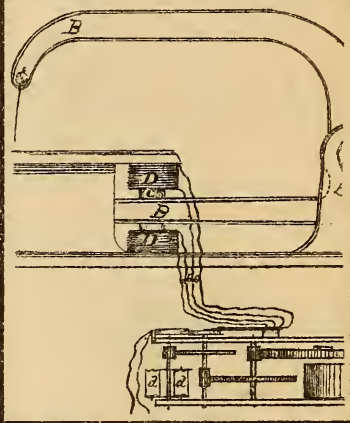
121,620 EDWIN HOLMES
ELECTRIC INDICATORS FOR ELEVATORS



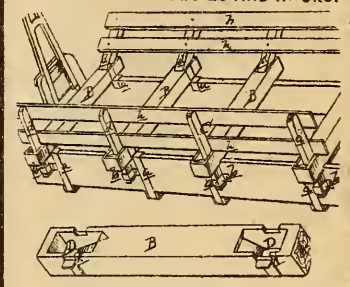
121,621 ROTARY HARROWS.
CORNELIUS HOOD.



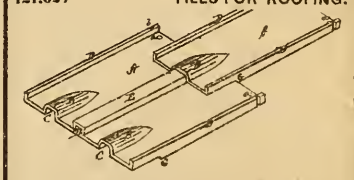
121,622 GEORGE M. HOPKINS.
ELECTRO-MAGNETIC SEWING-MACHINES.



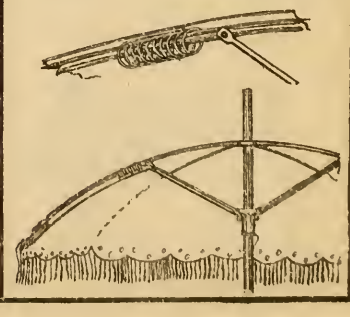
121,623 ISAAC N. HOYT.
WAGON-BODIES AND RACKS.



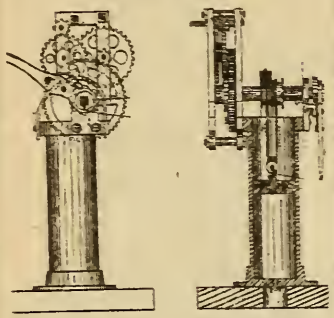
121,624 JOHN B. HUGHES,
TILES FOR ROOFING.



121,625 JAMES LOUIS JACQUIN.
PARASOLS.

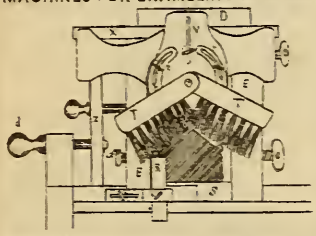


121,626 THOMAS B. JEFFERY.
PNEUMATIC MOTORS.

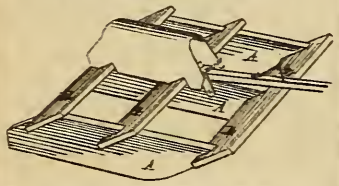


121,627 EPHRAIM S. JOHNSON.
ORNAMENTING PENCIL-CASES.

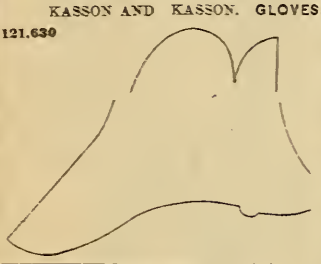
121,628 JOHN JOHNSON.
MACHINES FOR ENAMELING MOLDINGS



121,629 THOMAS BROWN JONES,
PULVERIZERS AND CORN-MARKERS.

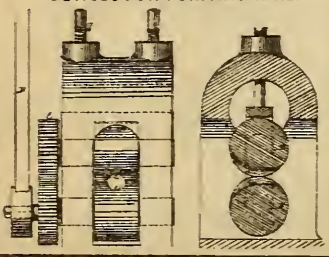


KASSON AND KASSON. GLOVES.
121,630

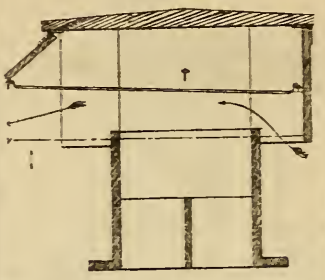


121,631 SIMON H. KENNEDY.
EXTRACTS FROM HEMLOCK BARK.

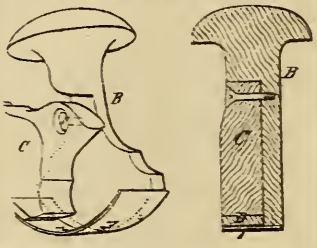
121,632 ROBERT KENT.
DEVICES FOR POINTING WIRE.



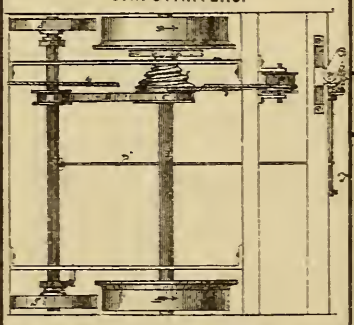
121,633 THOMAS KETCHEN.
CHIMNEY-TOPS.



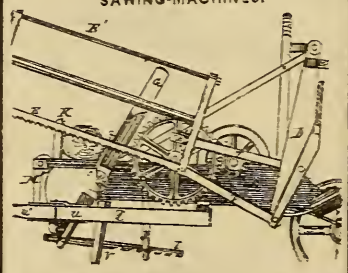
121,634 HERVEY KIMBALL.
STENCILING APPARATUS.



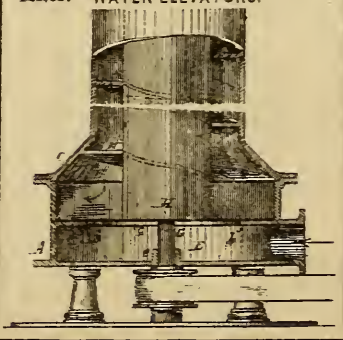
121,635 CHARLES P. LEAVITT.
CAR-STARTERS.



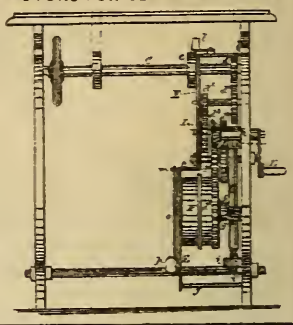
121,636 IRA B. LEWIS.
SAWING-MACHINES.



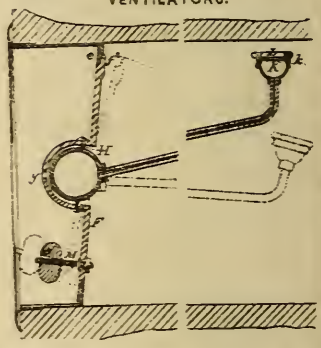
THOMAS J. LOVEGROVE.
121,637 WATER-ELEVATORS.



121,638 GEORGE W. MANSON.
MOTORS FOR SEWING-MACHINES.

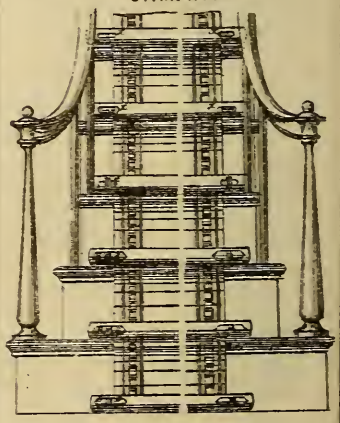


121,639 AMBROSE MARRIOTT.
VENTILATORS.

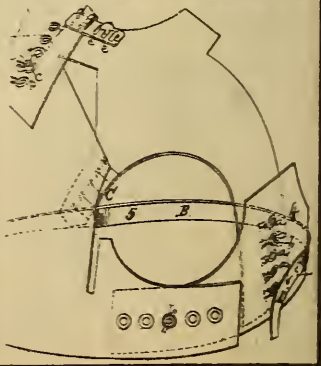


121,640 WILLIAM S. MARSH,
PRESERVING EGGS.

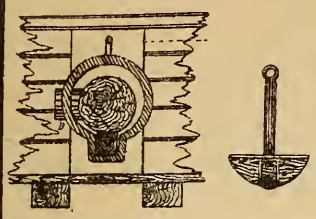
121,641 HENRY C. MARSTON.
STAIR-RODS.



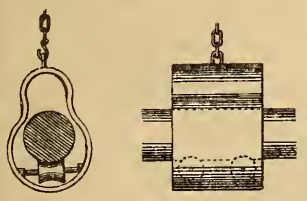
121,642 WILLIAM H. MAYER.
FITTING AND LAYING OUT GARMENTS



121,643 GEORGE MELVILLE McCLAIN,
TRAVELERS FOR VESSELS.

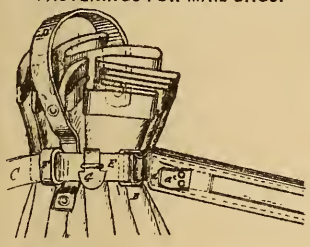


121,644 WILLIAM B. McCLURE.
STIRRUPS FOR CART AND DRAY SHAFTS

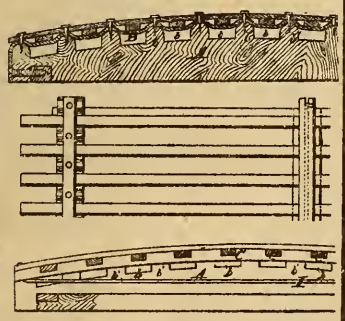


121,645 JOHN McDONALD.
HARDENING IRON AND STEEL.

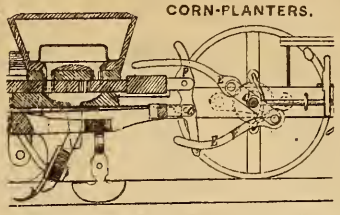
121,646 THOMAS McGRANE,
FASTENINGS FOR MAIL-BAGS.



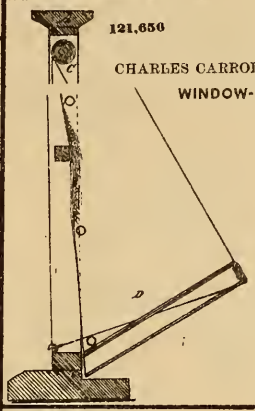
121,647 ALONZO D. McMASTER,
BED-BOTTOMS.



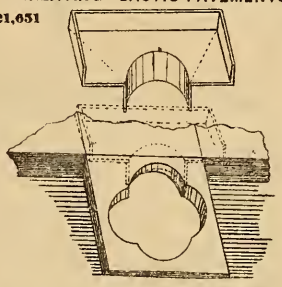
121,649 EDWIN JAMES MYERS,
CORN-PLANTERS.



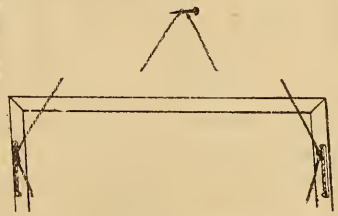
121,650 CHARLES CARROLL MOORE,
WINDOW-AWNINGS.



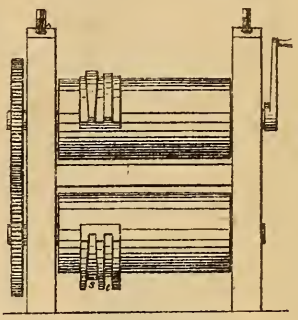
GEORGE H. MOORE,
INLAYING PLASTIC PAVEMENTS.
121,651



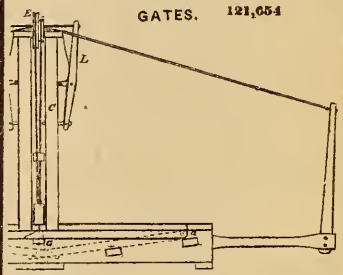
121,652 CHARLES H. MOULTON,
PICTURE-FRAME HANGERS.



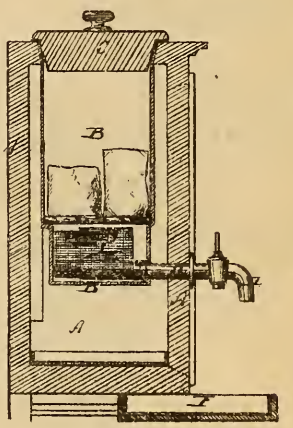
121,653 SAMUEL C. MURDOCH,
ROLLING HARROW-TEETH.



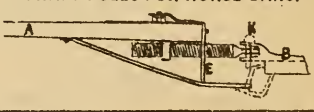
VINCENT CAMPBELL NEWLAND,
GATES. 121,654



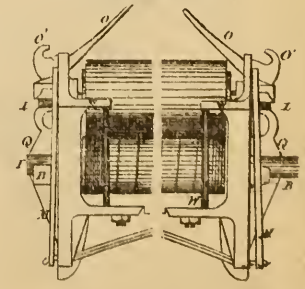
121,655 JOHN P. OETH,
REFRIGERATORS.



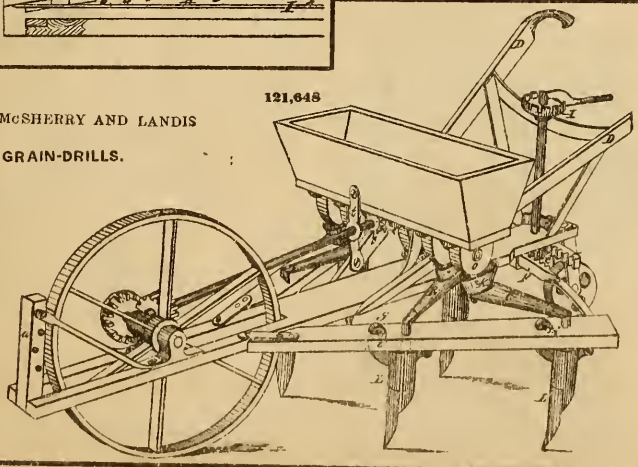
121,656 SAMUEL A. OTIS,
DRAFT-POLES FOR HORSE-CARS.



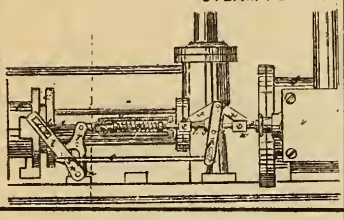
121,657 PALMER AND PALMER,
CLOTHES-WRINGERS.



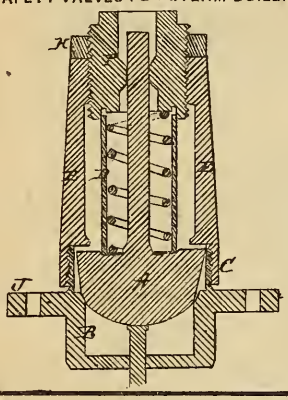
McSHERRY AND LANDIS
GRAIN-DRILLS. 121,648



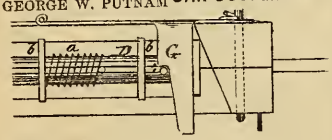
121,658 ALBERT PERRY, STEAM-PUMPS.



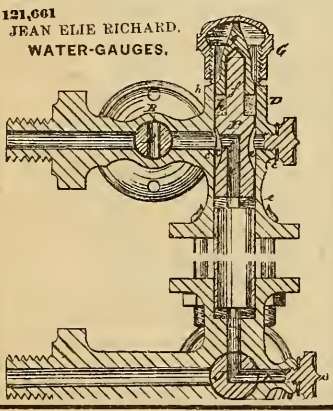
121,659 ANDREW J. PRESCOTT, SAFETY-VALVES FOR STEAM-BOILERS.



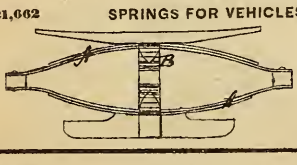
121,660 GEORGE W. PUTNAM CAR-COUPLINGS.



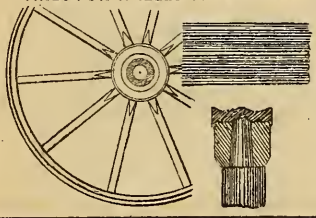
121,661 JEAN ELIE RICHARD, WATER-GAUGES.



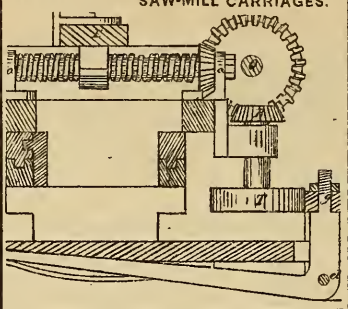
121,662 LEWIS RIGHTER, SPRINGS FOR VEHICLES.



121,663 LEWIS RIGHTER, TIRES FOR WHEELS OF VEHICLES.

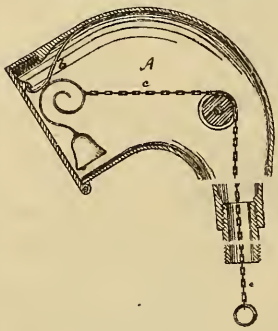


121,664 TITUS H. RUSSELL, SAW-MILL CARRIAGES.

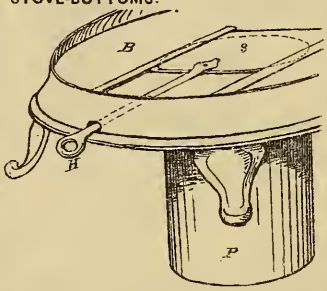


121,665 E. DELMAR DE HAYS SAINT CYR, COFFEE-ANTIDOTES.

121,666 SCHROEDER AND WUEST, LIFE-DETECTORS FOR COFFINS.



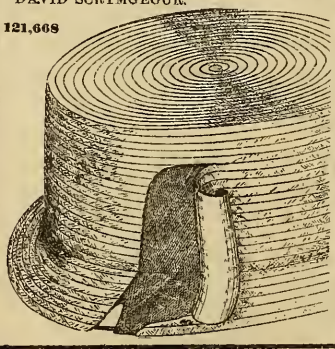
121,667 DANIEL SCHUYLER, STOVE-BOTTOMS.



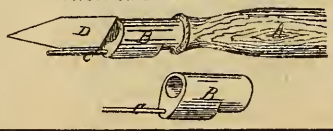
HATS OR BONNETS.

DAVID SCRYMGEOUR.

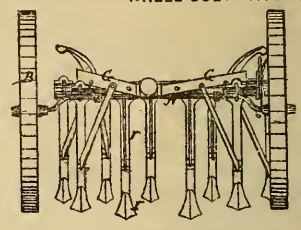
121,668



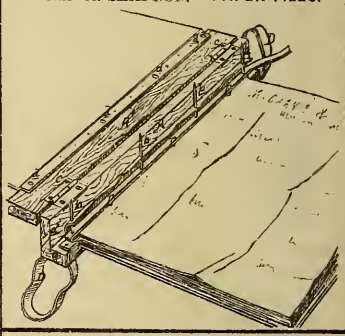
121,669 THEODORE SEARING, FRUIT AND VEGETABLE PARERS.



121,670 THOMPSON C. SEBRING, WHEEL-CULTIVATORS.

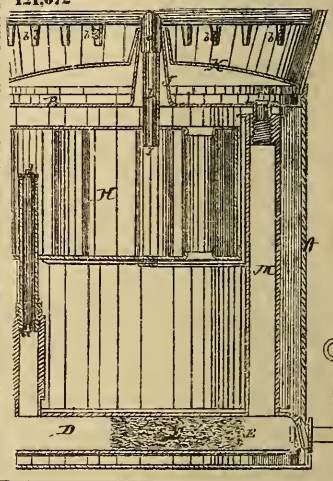


121,671 JOHN A. SHANNON, PAPER-FILES.

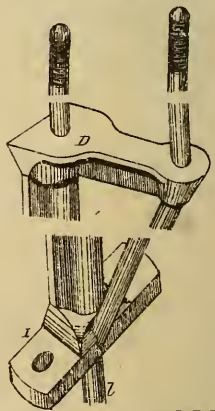


BRINGMAN.

121,672 WASHING-MACHINES.

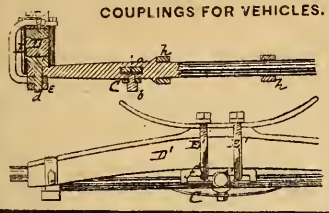


121,673 ALBERT L. SHEARS, SLED-KNEES.

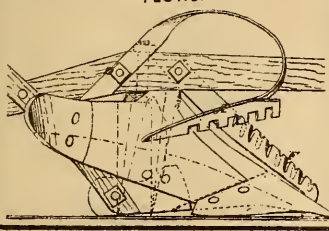


121,674 CHARLES SHERRIFF, IMITATION HAIR-CLOTHS.

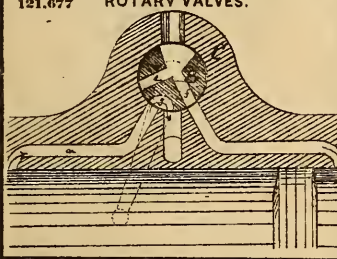
121,675 LEWIS C. SIMS, COUPLINGS FOR VEHICLES.



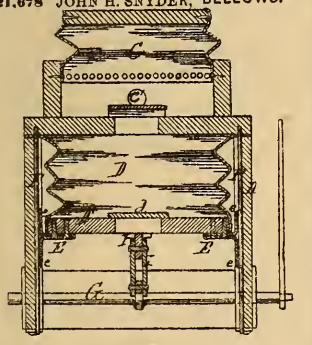
121,676 JUSTIN MALANCEN SMITH. PLOWS.



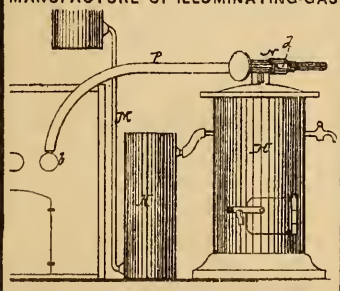
DANIEL SNOWHILL AND JOHN D. BOWN. 121,677 ROTARY VALVES.



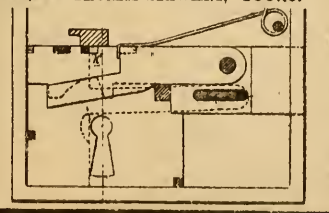
121,678 JOHN H. SNYDER, BELLOWS.



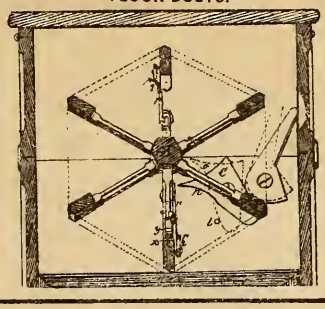
121,679 THEODORE G. SPRINGER, MANUFACTURE OF ILLUMINATING-GAS



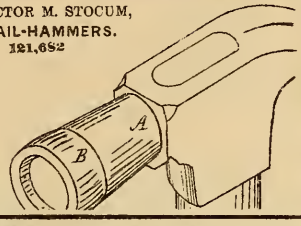
121,680 THOMAS STEWART, LOCKS.



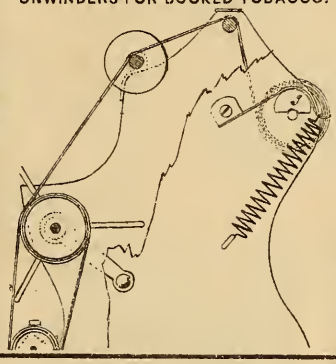
121,681 ROSWELL H. ST. JOHN, FLOUR-BOLTS.



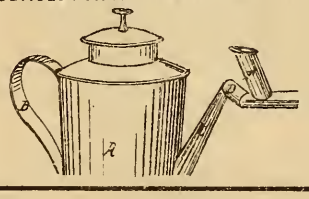
HECTOR M. STOCUM, NAIL-HAMMERS. 121,682



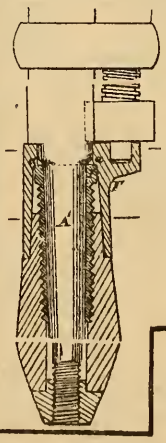
121,683 GEORGE STORM, UNWINDERS FOR BOOKED TOBACCO.



121,684 JOHN SULLIVAN, DEVICES FOR ADMINISTERING PILLS.

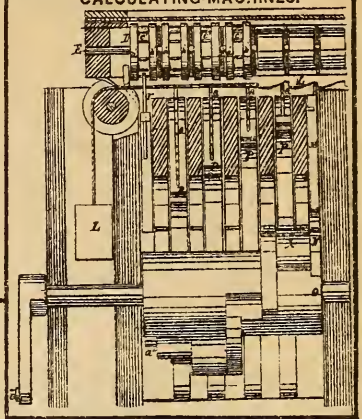


GEORGE C. TAFT, WRENCHES. 121,685

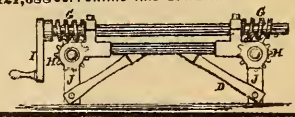


121,686 EDWARD L. TAYLOR, SOUNDING-BOARDS FOR PIANOS.

121,687 ROBINSON TEASDALE, CALCULATING-MACHINES.



THOMPSON AND COLEMAN, 121,688 SUPPORTING AND LOWERING COFFINS.



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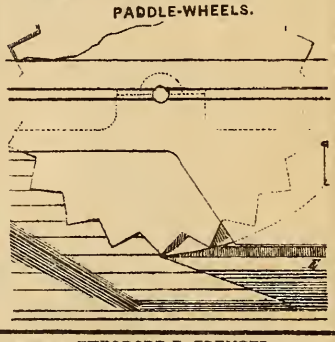

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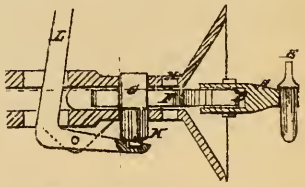

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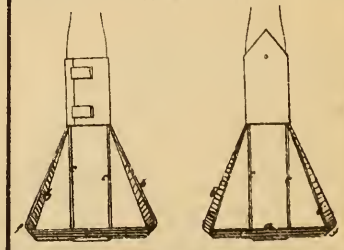
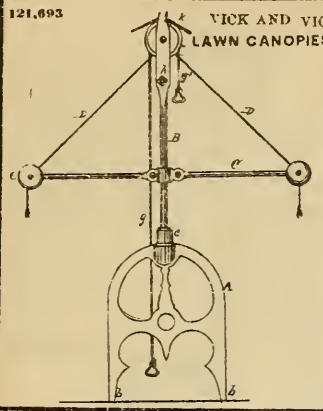


OLIVER VANORMAN, TRUSS-BRACES FOR AXLE-SKEINS. 121,692

121,693 VICK AND VICK. LAWN CANOPIES.



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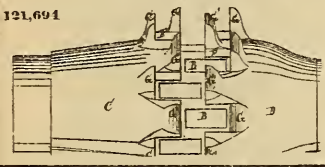
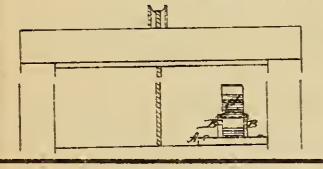


121,695 FELIX WALKER. SASH-HOLDERS.



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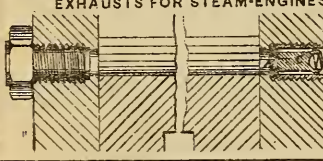
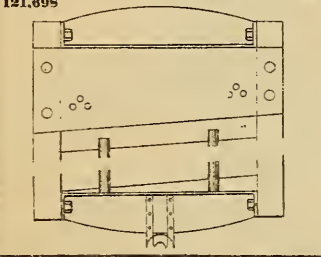
121,697 WILLIAM H. WHEATLAND, EXHAUSTS FOR STEAM-ENGINES



121,698 JULIUS P. WILDER, SHINGLE-MACHINES.



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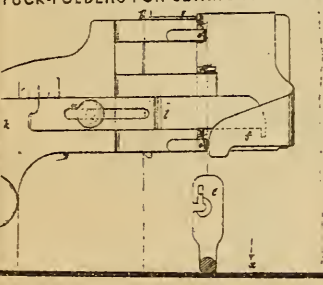

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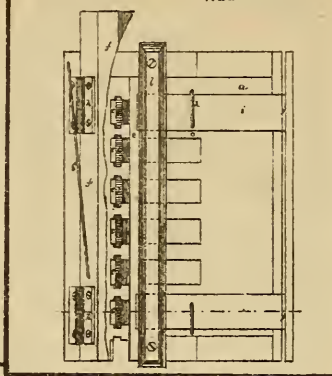
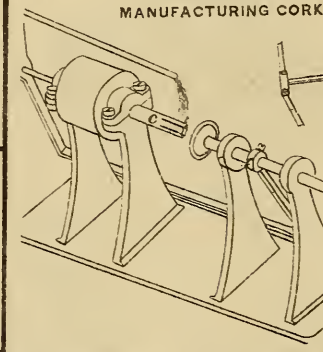
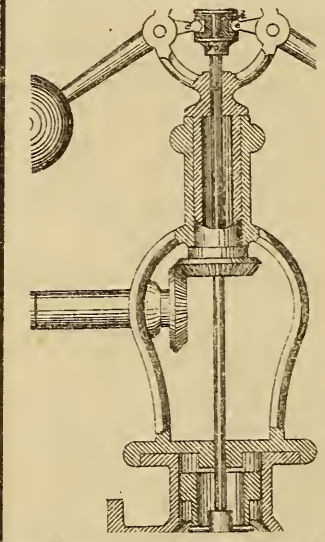


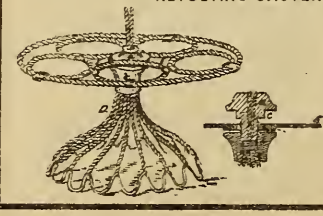
4,654 MARY F. CROCKER, MACHINES FOR MANUFACTURING CORKS



4,655 JUNIUS JUDSON, GOVERNORS FOR STEAM-ENGINES.

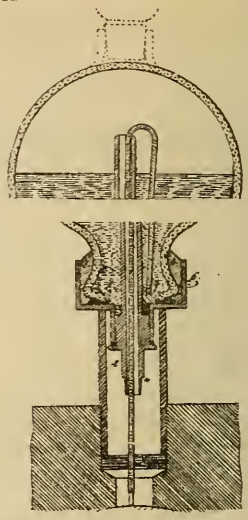


4,656 4,657 CYRUS H. LATHAM AND JOHN S. LUGG, REVOLVING CASTERS.

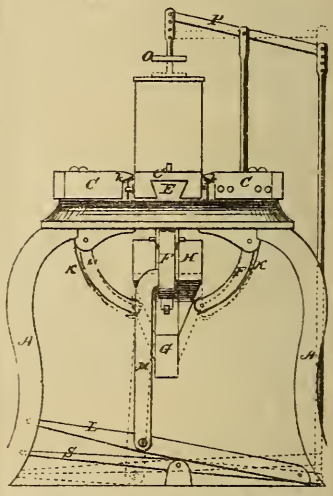


JOHN B. WICKERSHAM. LUBRICATORS.

4,658



4,659 ELIPHALET W. BLISS. MACHINES FOR MAKING TIN CANS.



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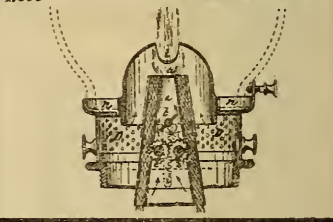
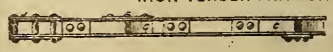


4,661 BENJAMIN W. HEALEY IRON TENDER-FRAMES.



4,662 CHARLES McBURNEY, VULCANIZED-RUBBER BELTINGS.

4,663 CHARLES H. WILLCOX. SEWING-MACHINE NEEDLES.

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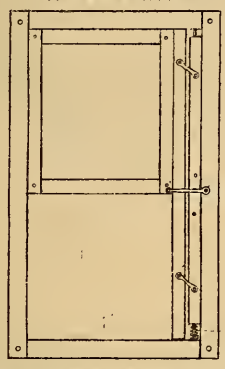
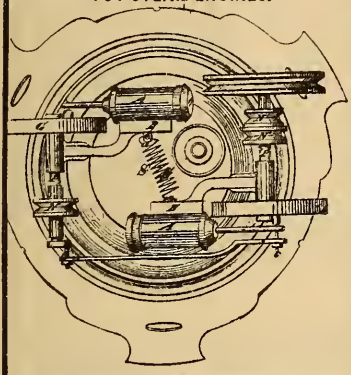
121,701 WILLIAM HAMMOND BROWN
SASH-SUPPORTERS.



121,702 ALEXANDER BUCKMAN.
TOY STEAM-ENGINES.



WILLIAM A. CARON. DOOR-PLATES.
121,703

121,704
JUNIUS CARPENTER,
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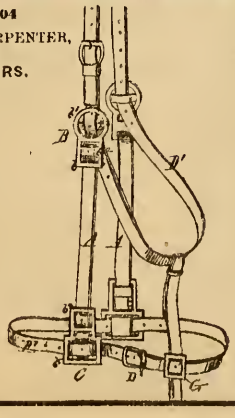
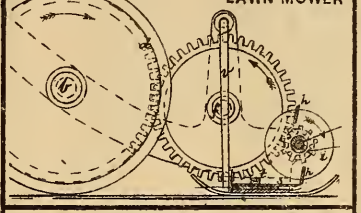
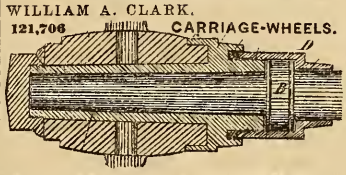


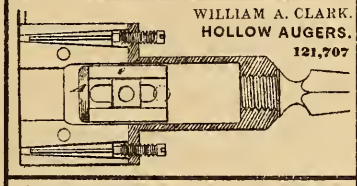
121,705 DEXTER H. CHAMBERLAIN.
LAWN-MOWER



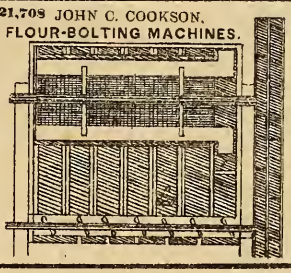
WILLIAM A. CLARK.
121,706 CARRIAGE-WHEELS.



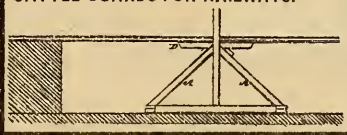
WILLIAM A. CLARK.
HOLLOW AUGERS.
121,707

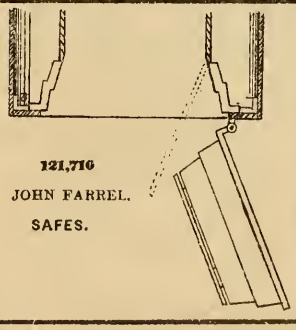


121,708 JOHN C. COOKSON.
FLOUR-BOLTING MACHINES.



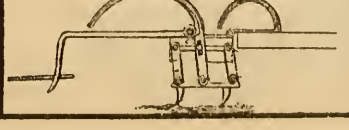
121,709 DARRAH AND CUTSHALL.
CATTLE-GUARDS FOR RAILWAYS.





121,710
JOHN FARREL.
SAFES.

121,713 HARVEY FOWLER.
PROPULSION OF CANAL-BOATS.



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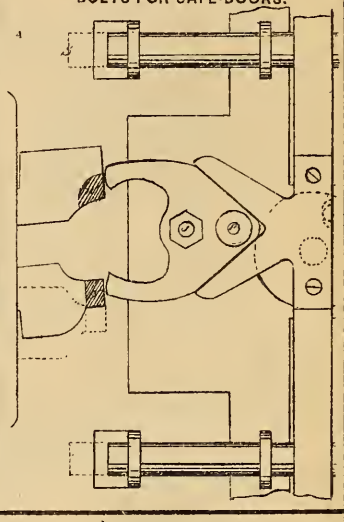
BOLTS FOR SAFE-DOORS.



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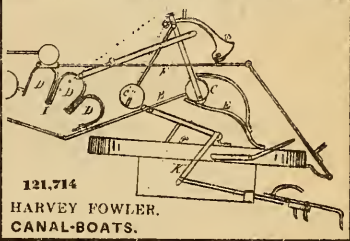
PROPULSION OF CANAL-BOATS.



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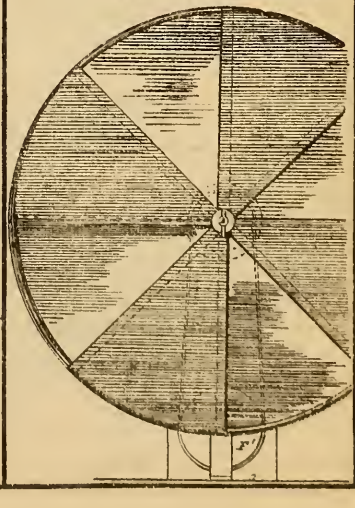
HARVEY FOWLER.
CANAL-BOATS.

121,715 ALBERT R. GOULD.
PHOTOGRAPHIC BACKGROUNDS.



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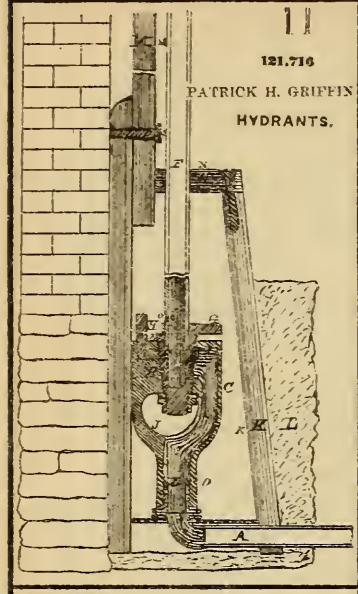
PATRICK H. GRIFFIN
HYDRANTS.



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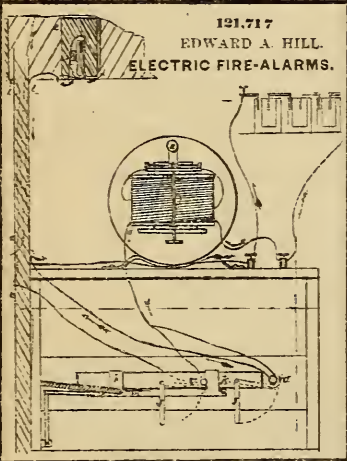
EDWARD A. HILL.
ELECTRIC FIRE-ALARMS.



WILLIAM A. HINMAN. BOTTLE-WRAPPER
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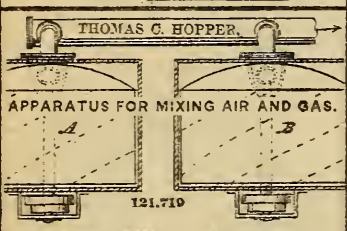
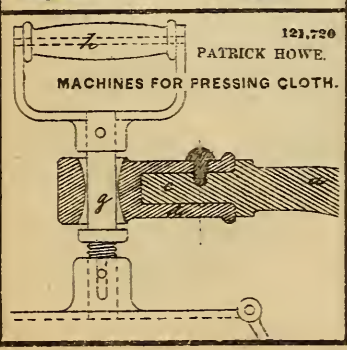
THOMAS C. HOPPER.
APPARATUS FOR MIXING AIR AND GAS.

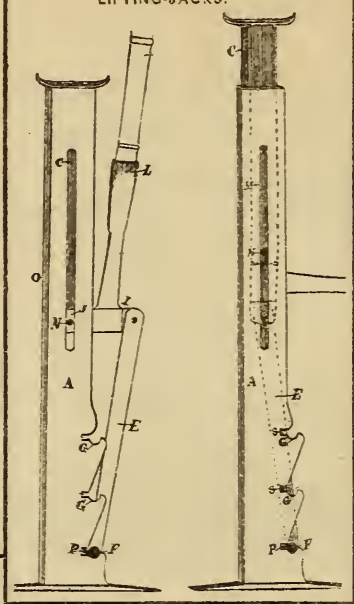


121,719

121,720
PATRICK HOWE.
MACHINES FOR PRESSING CLOTH.



121,721 ISAAC D. JOHNSON.
LIFTING-JACKS.



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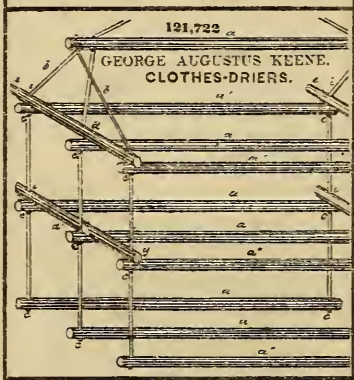
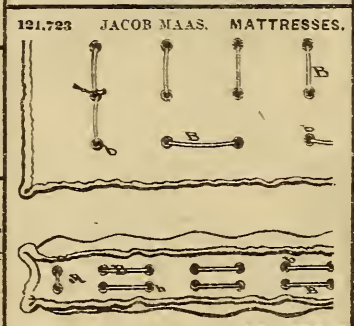
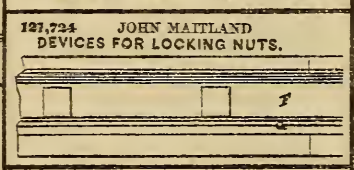
GEORGE AUGUSTUS KEENE.
CLOTHES-DRIERS.



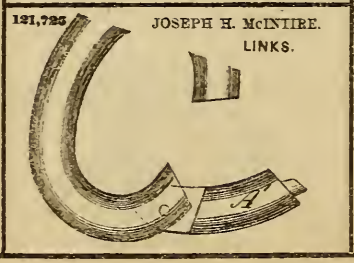
121,723 JACOB MAAS. MATTRESSES.



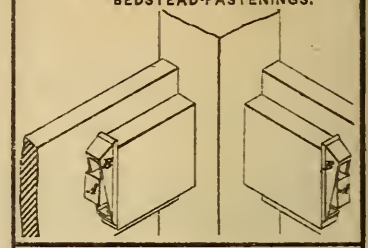
121,724 JOHN MAITLAND
DEVICES FOR LOCKING NUTS.



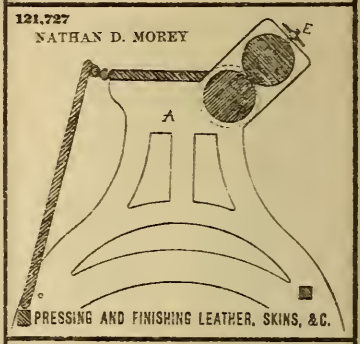
121,725 JOSEPH H. McINTIRE.
LINKS.



121,726 WILLIAM H. McPHERSON.
BEDSTEAD-FASTENINGS.

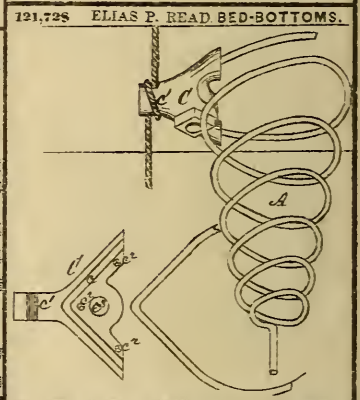


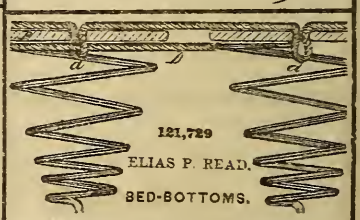
121,727
NATHAN D. MOREY



PRESSING AND FINISHING LEATHER, SKINS, &C.

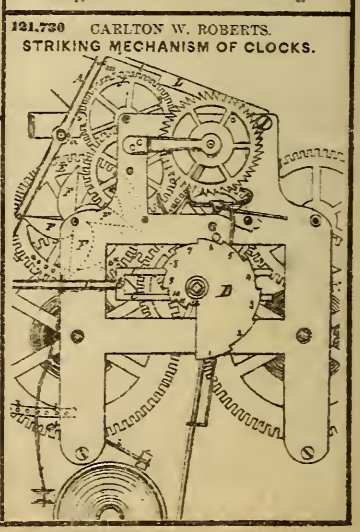
121,728 ELIAS P. READ. BED-BOTTOMS.



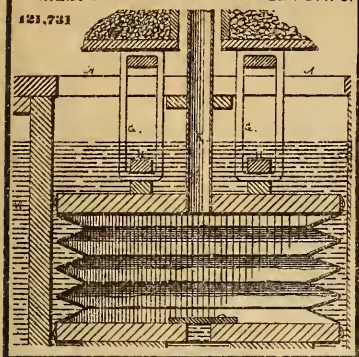


121,729
ELIAS P. READ.
BED-BOTTOMS.

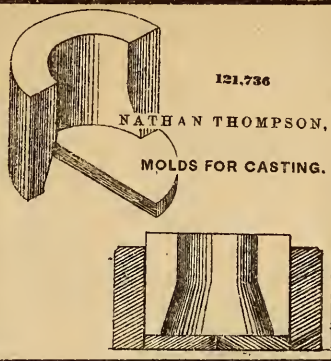
121,730 CARLTON W. ROBERTS.
STRIKING MECHANISM OF CLOCKS.



GILES BOLIVAR ROE. CATTLE-PUMPS.
121,731

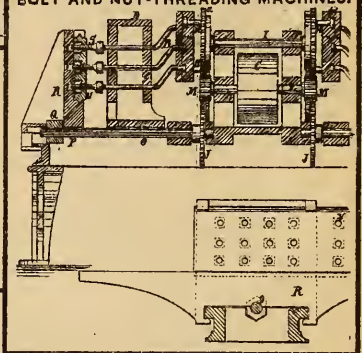


121,736
NATHAN THOMPSON,
MOLDS FOR CASTING.

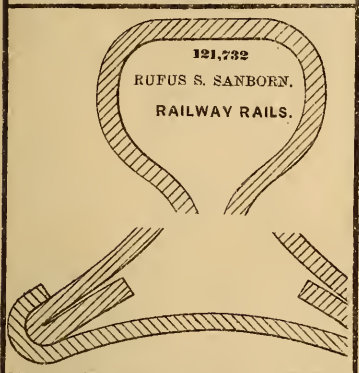


121,742
EDWARD ALDOM,
SPRING-PERCHES FOR BIRD-CAGES.

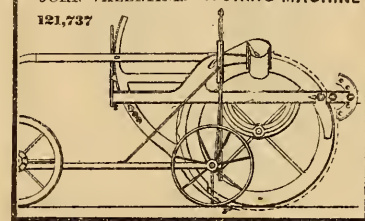
121,743 ALLEN AND RITCHEL,
BOLT AND NUT-THREADING MACHINES.



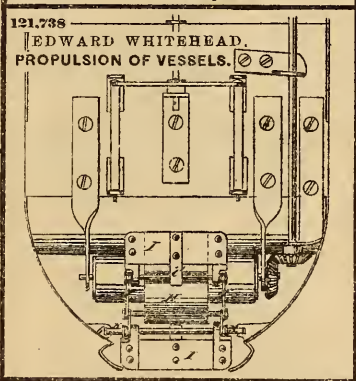
121,732
RUFUS S. SANBORN,
RAILWAY RAILS.



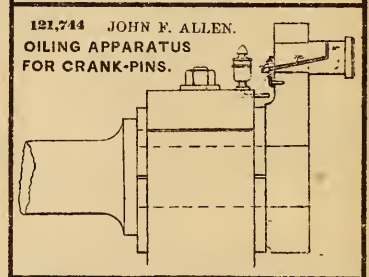
JOHN VALENTINE. DITCHING-MACHINE
121,737



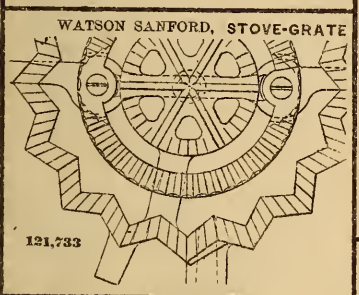
121,738
EDWARD WHITEHEAD,
PROPULSION OF VESSELS.



121,744 JOHN F. ALLEN.
OILING APPARATUS
FOR CRANK-PINS.

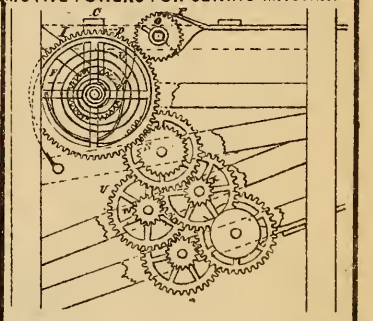


WATSON SANFORD, STOVE-GRATE

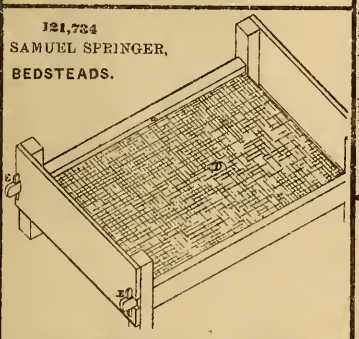


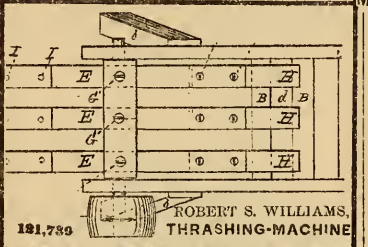
121,733

121,745 HARVEY S. BARNES.
MOTIVE-POWERS FOR SEWING-MACHINES



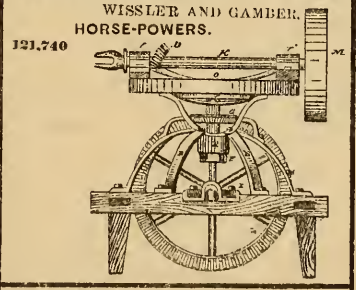
121,734
SAMUEL SPRINGER,
BEDSTEADS.



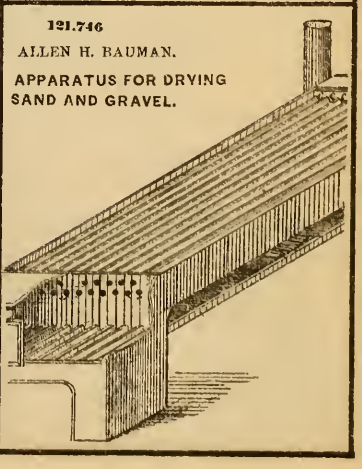


121,739 ROBERT S. WILLIAMS,
THRASHING-MACHINE

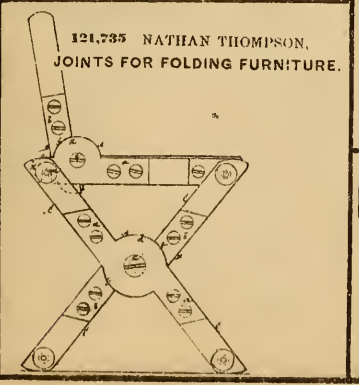
WISSLER AND GAMBER,
HORSE-POWERS.
121,740



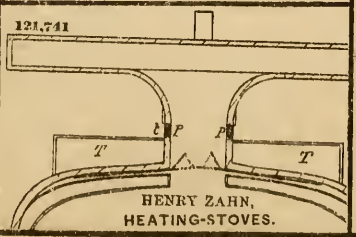
121,746
ALLEN H. BAUMAN,
APPARATUS FOR DRYING
SAND AND GRAVEL.



121,735 NATHAN THOMPSON,
JOINTS FOR FOLDING FURNITURE.



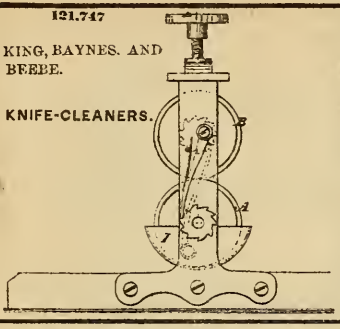
121,741



HENRY ZAHN,
HEATING-STOVES.

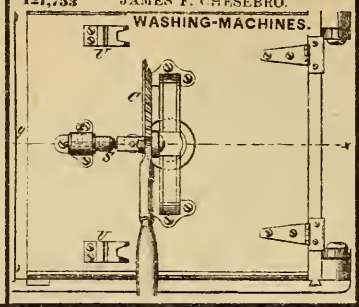
121,747 KING, BAYNES, AND BEEBE.

KNIFE-CLEANERS.



121,753 JAMES F. CHESEBRO.

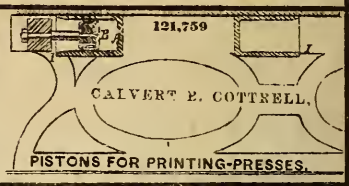
WASHING-MACHINES.



121,759

CALVERT E. COTTRELL.

PISTONS FOR PRINTING-PRESSES.



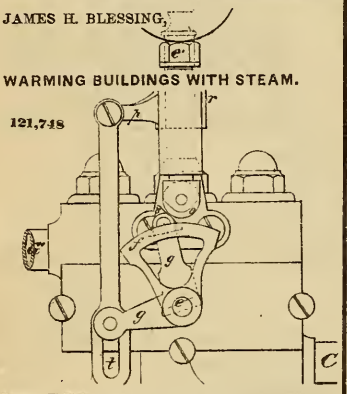
121,760 MICHAEL CRAVEN.

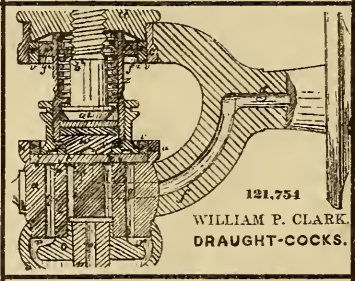
RESTS FOR CLOTH-SHEARING MACHINES.

JAMES H. BLESSING.

WARMING BUILDINGS WITH STEAM.

121,748





121,754 WILLIAM P. CLARK.

DRAUGHT-COCKS.

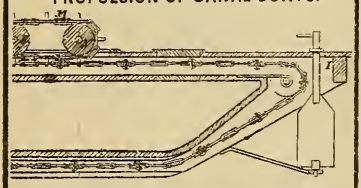
VELENUS W. CROWSON.

COVERINGS FOR WHIPS.

121,761

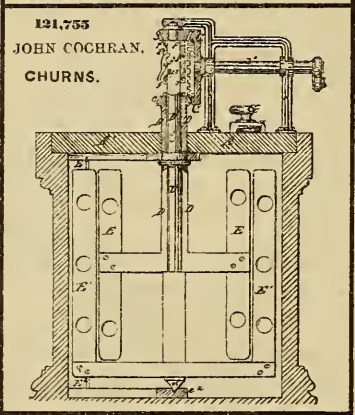
121,749 THOMAS JAMES BURKE.

PROPULSION OF CANAL-BOATS.



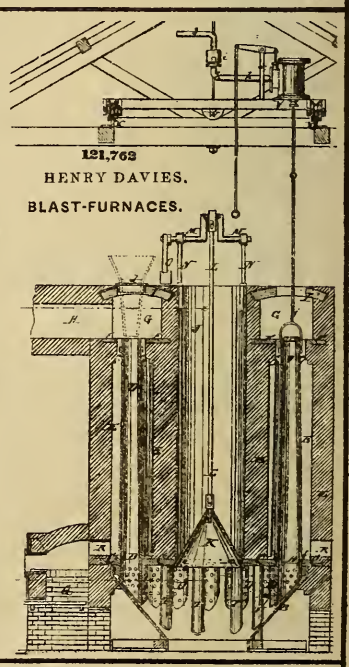
121,755 JOHN COCHRAN.

CHURNS.



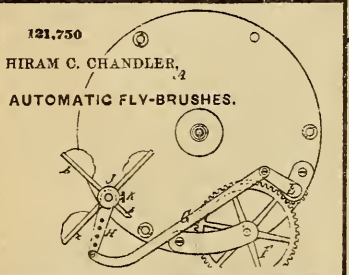
121,762 HENRY DAVIES.

BLAST-FURNACES.



121,750 HIRAM C. CHANDLER.

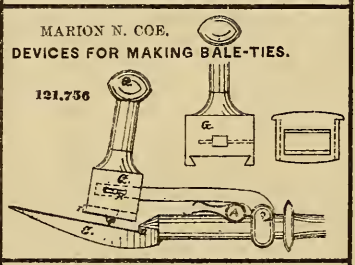
AUTOMATIC FLY-BRUSHES.



MARION N. COE.

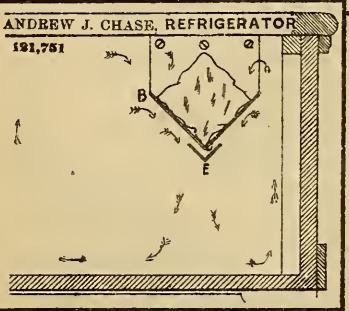
DEVICES FOR MAKING BALE-TIES.

121,756



ANDREW J. CHASE. REFRIGERATOR.

121,751



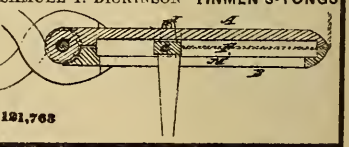
FREDERICK COELLER.

SHOE-FASTENINGS.

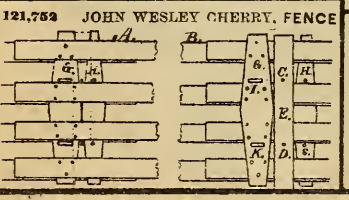
121,757

SAMUEL T. DICKINSON TINMEN'S-TONGS

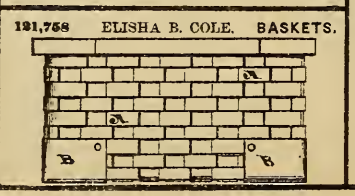
121,763



121,752 JOHN WESLEY CHERRY. FENCE

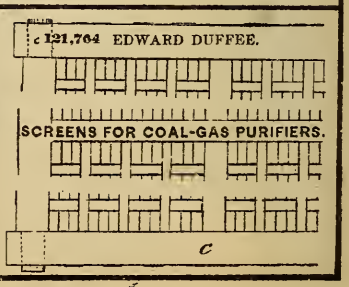


121,758 ELISHA B. COLE. BASKETS.

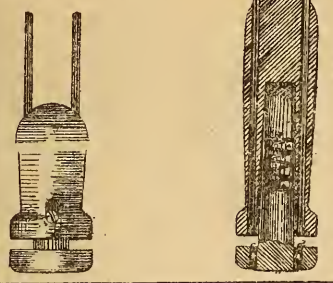


121,764 EDWARD DUFFEE.

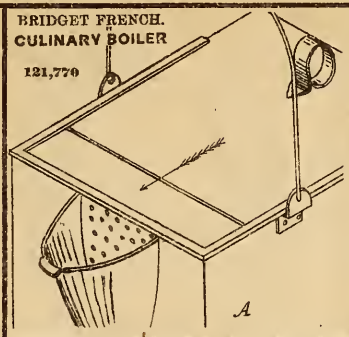
SCREENS FOR COAL-GAS PURIFIERS.



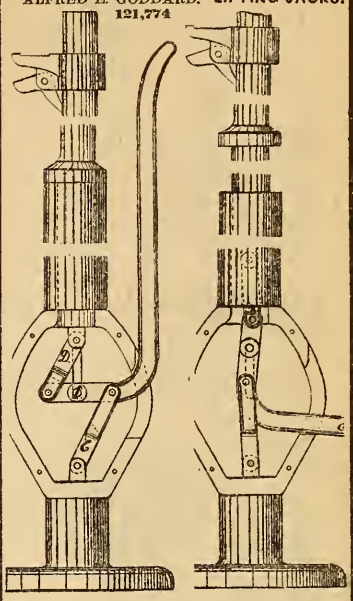
121,765
DANIEL E. EATON.
STAMP-CANCELERS.



BRIDGET FRENCH.
CULINARY BOILER
121,770

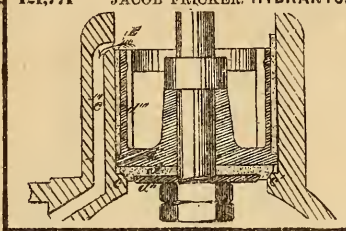


ALFRED E. GOODARD. LIFTING-JACKS.
121,774

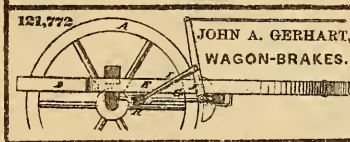


EDWARD F. EDGECOMB
TOOL-HOLDERS FOR GRINDERS.
121,766

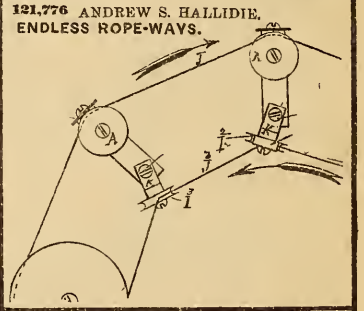
121,771 JACOB FRICKER. HYDRANTS.



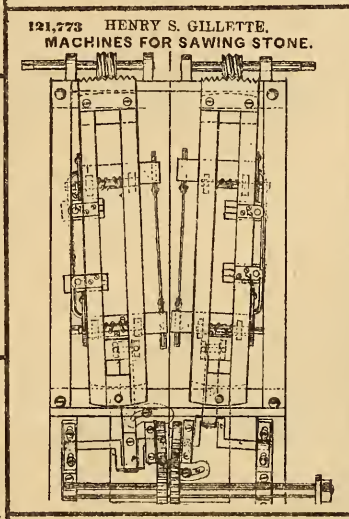
121,772
JOHN A. GERHART,
WAGON-BRAKES.



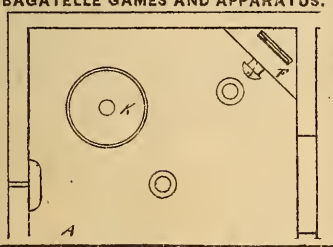
121,776 ANDREW S. HALLIDIE.
ENDLESS ROPE-WAYS.



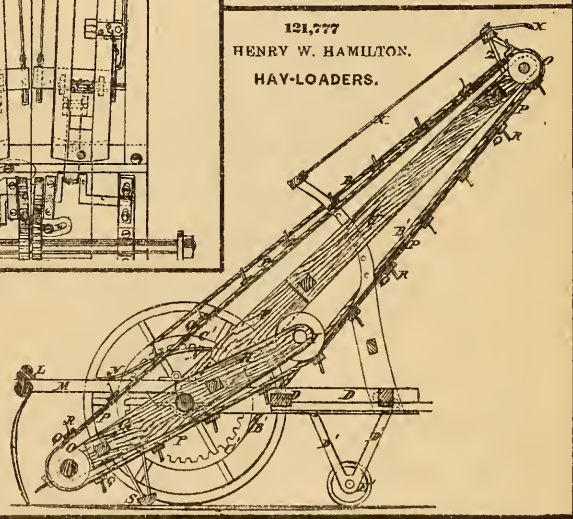
121,773 HENRY S. GILLETTE.
MACHINES FOR SAWING STONE.

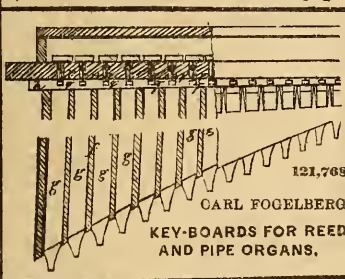


121,767 WILLIAM EVERS.
BAGATELLE GAMES AND APPARATUS.



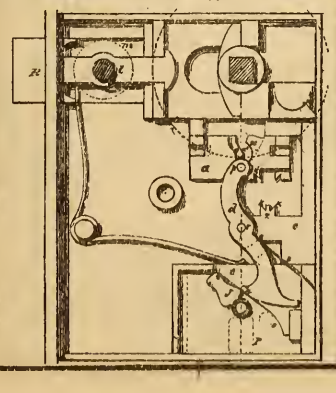
121,777
HENRY W. HAMILTON.
HAY-LOADERS.



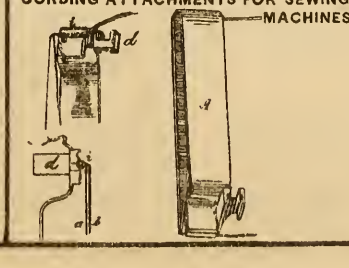


121,768
CARL FOGELBERG.
KEY-BOARDS FOR REED AND PIPE ORGANS.

121,769 VITRUVIUS FRAZEE.
COMBINED LATCHES AND LOCKS.



121,775 HARRY C. GOODRICH.
CORDING ATTACHMENTS FOR SEWING-MACHINES.



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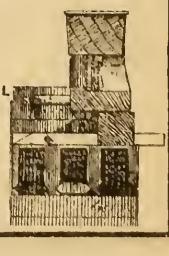
KEY-BOARD MUSICAL INSTRUMENTS.



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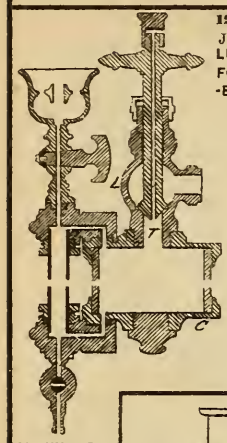
LUBRICATORS FOR STEAM -ENGINES.



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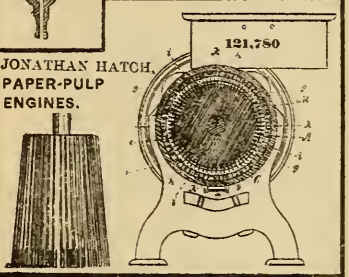
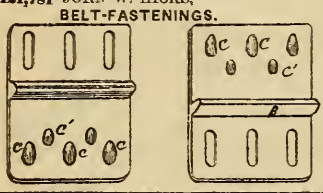
JONATHAN HATCH.
PAPER-PULP ENGINES.



121,781 JOHN W. HICKS.
BELT-FASTENINGS.



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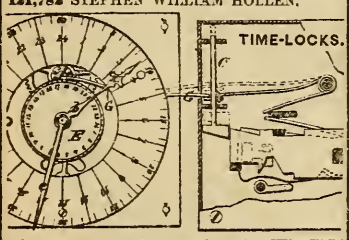
TIME-LOCKS.



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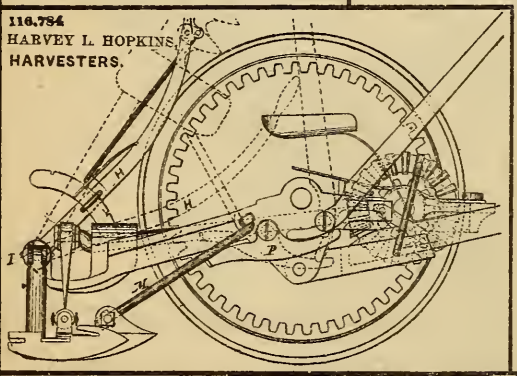
HARVESTERS.



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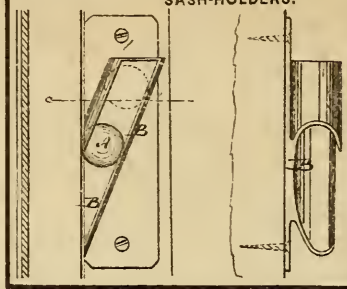
JOHN HOLMES.
MINERS' SQUIBS.

121,785 HUBBARD AND HUBBARD.
SASH-HOLDERS.



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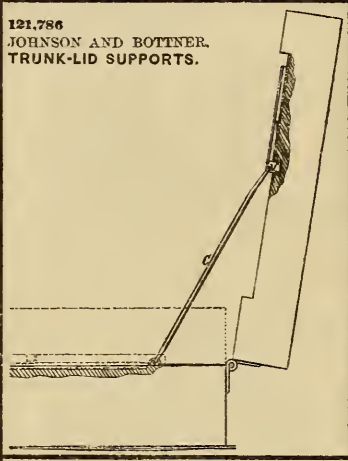
JOHNSON AND BOTTNER.
TRUNK-LID SUPPORTS.



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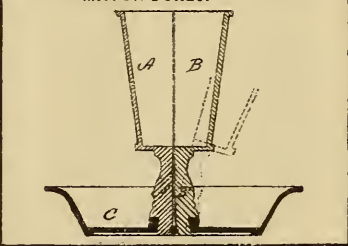
MATCH-BOXES.



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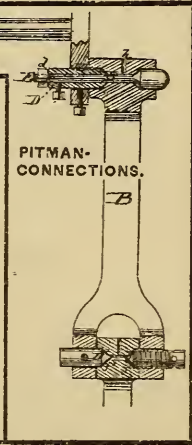
PITMAN-CONNECTIONS.



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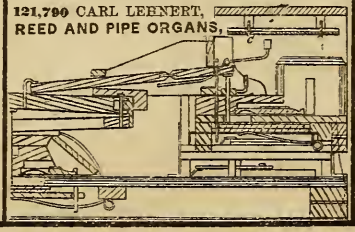
REED AND PIPE ORGANS.



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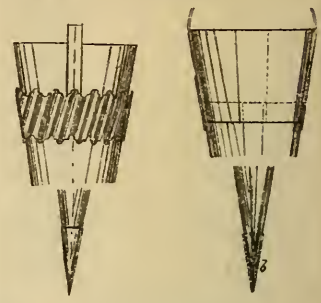
TRANSPARENT CORNUCOPIAS.



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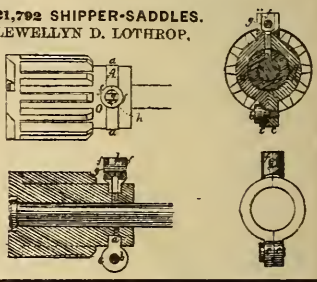
LLEWELLYN D. LOTHROP.



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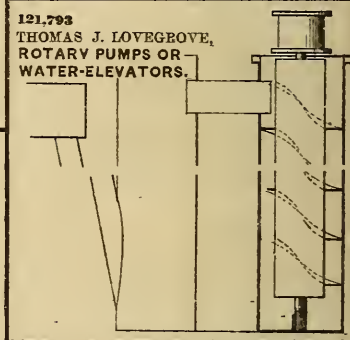
THOMAS J. LOVEGROVE.
ROTARY PUMPS OR WATER-ELEVATORS.



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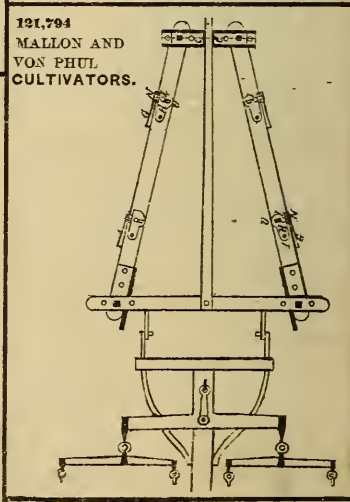
MALLON AND VON PHUL
CULTIVATORS.



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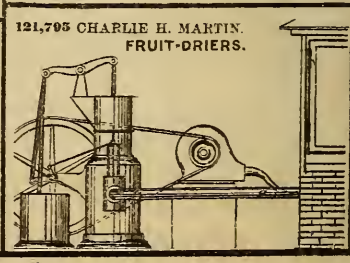
FRUIT-DRIERS.



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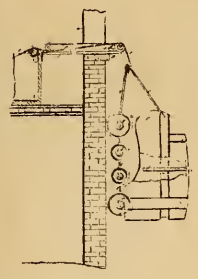
PORTABLE FIRE-ESCAPES.



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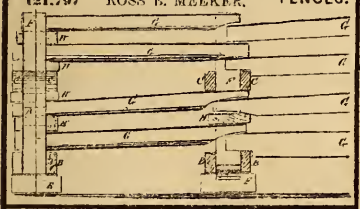

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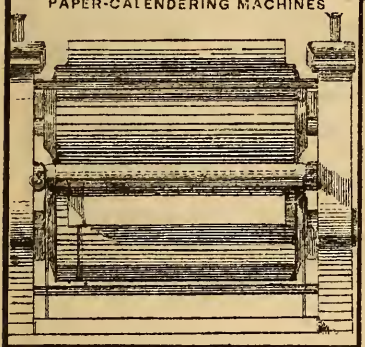
PAPER-CALENDERING MACHINES



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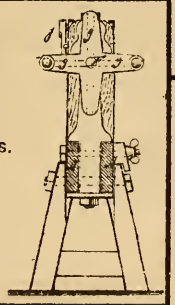
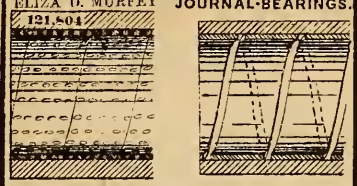
PAINTERS' TRESTLES.



121,802
GEORGE MORRISON,
PLATES FOR ARTIFICIAL TEETH.

121,803
FRANCIS B. MORSE,
DIES FOR MAKING CARRIAGE-STEPS.

ELIZA D. MURFEY JOURNAL-BEARINGS.
121,804

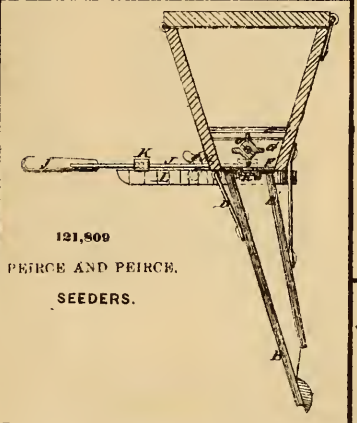


121,805 ELIZA D. MURFEY, 121,806
PACKINGS AND BEARINGS.

121,807 EDWIN NORTON,

DIES FOR MAKING BLANKS FOR STOVE-PIPE ELBOWS.

121,808 ALWIN PAYNE,
METALLIC CARTRIDGES.



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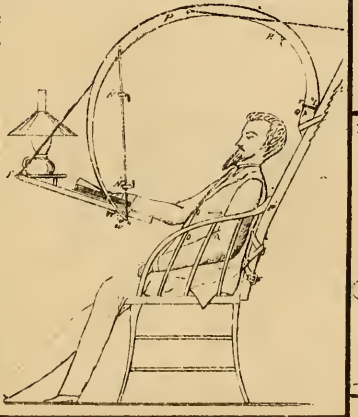
PEIRCE AND PEIRCE.
SEEDERS.

121,810 GEORGE F PERKINS.
PENDENT READING-DESKS.



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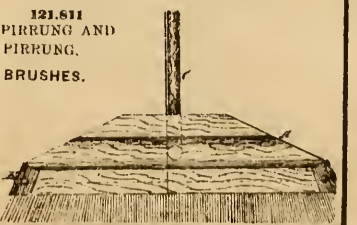
PIRRUNG AND
PIRRUNG.
BRUSHES.



JOHN W. PLOUFF.
WASH-BOILERS.
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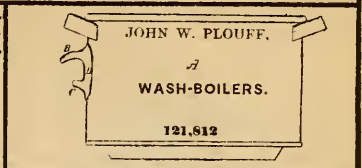

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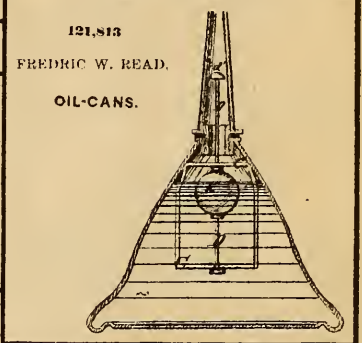
OIL-CANS.



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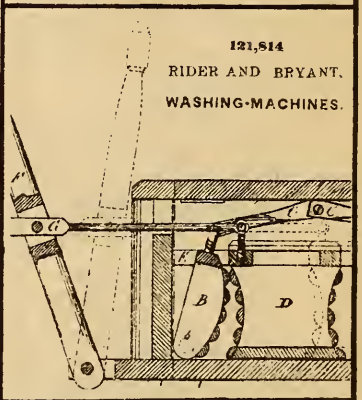
WASHING-MACHINES.



HENRY A. RIDLEY, COTTON-PLANTERS.
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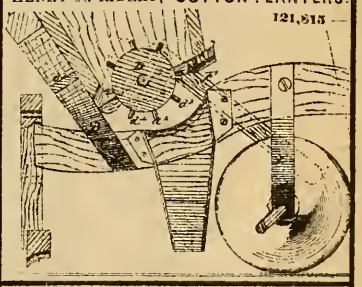

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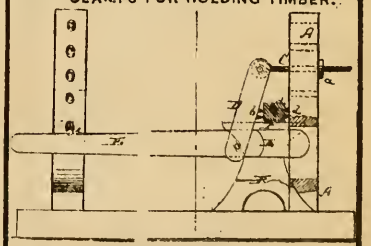
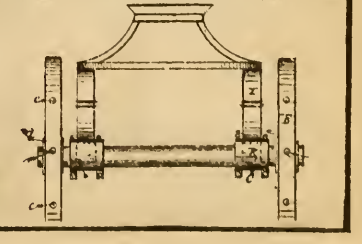
CLAMPS FOR HOLDING TIMBER.



121,817 THOMAS S. SEABURY, SULKIES.



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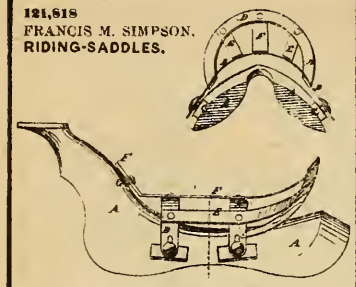
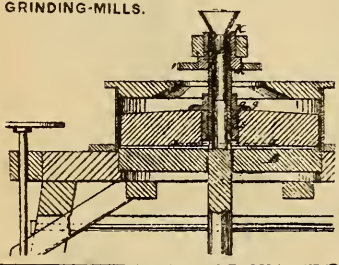
RIDING-SADDLES.



121,819 JOHN B. SMITH.
GRINDING-MILLS.



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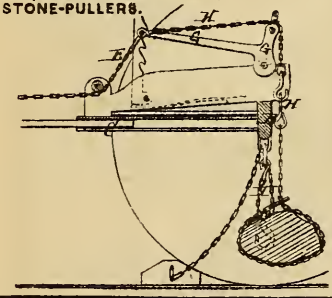
STONE-PULLERS.



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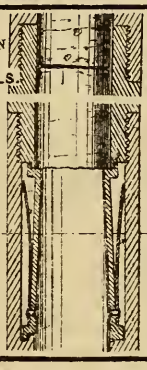
CHARLES J. STEVENSON
CORE-RETAINER FOR
TUBULAR ROCK-DRILLS.



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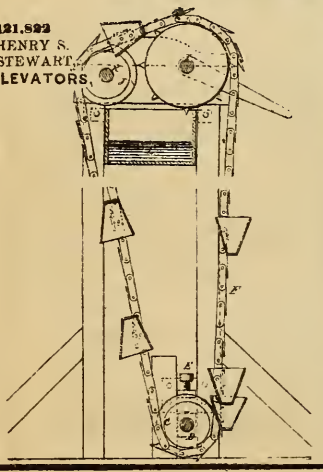
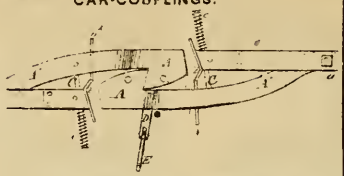
HENRY S.
STEWART.
ELEVATORS.



121,823 JOSEPH B. TRACY.
CAR-COUPLINGS.



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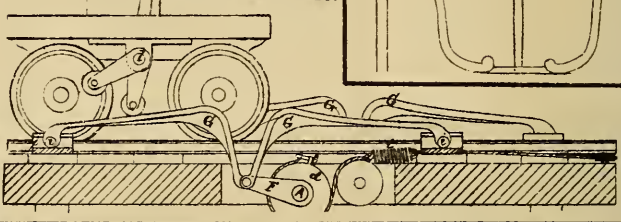
EDWARD A. TRAPP.
RAILWAY SWITCHES.



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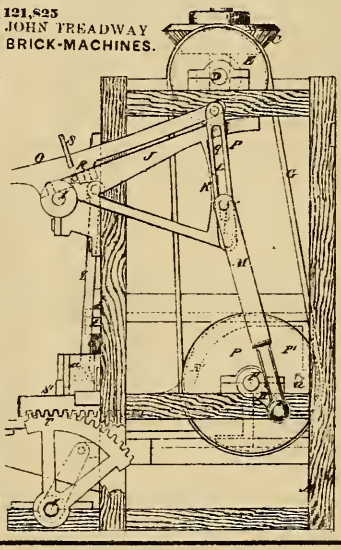
JOHN TREADWAY
BRICK-MACHINES.



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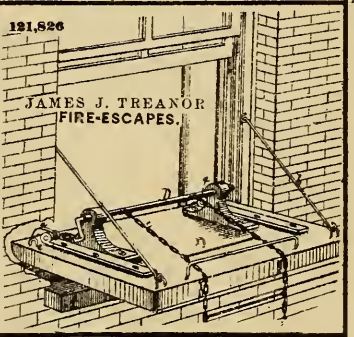
JAMES J. TREANOR
FIRE-ESCAPES.



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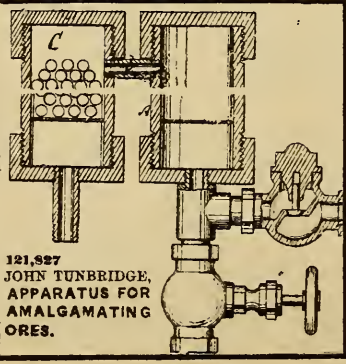
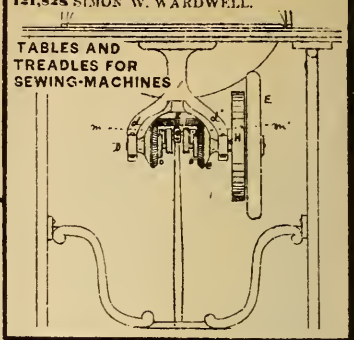
JOHN TUNBRIDGE,
APPARATUS FOR
AMALGAMATING
ORES.



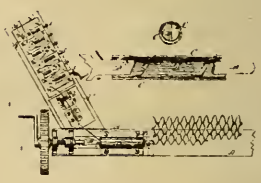
121,828 SIMON W. WARDWELL.
TABLES AND
TREADLES FOR
SEWING-MACHINES



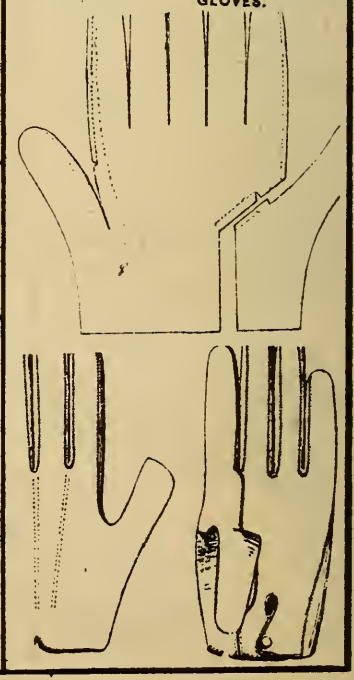
121,829 WILLIAM M. WATERBURY.
HAT-SWEATS FROM
WATER-PROOF PAPER.

121,830 WATERS, AND ORR.
LOOM-SHUTTLES.

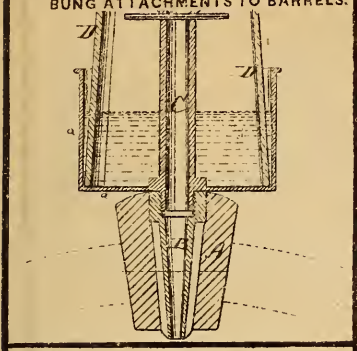
121,831 FREDERICK C. CHARLES WEBER,
MAKING WIRE-NETTINGS.



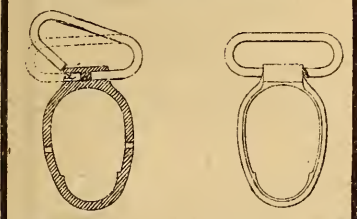
121,832 121,833 WILLIAM W. WHITAKER.
GLOVES.



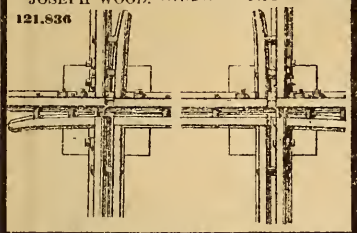
121,834 ANTON WIENERS
BUNG ATTACHMENTS TO BARRELS.



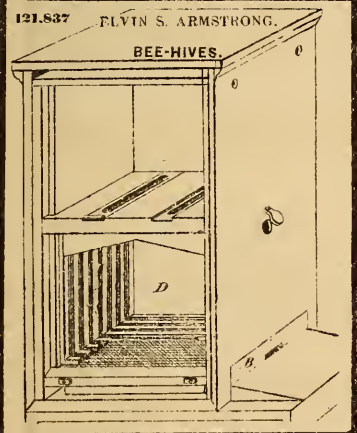
121,835 OLIVER F. WINCHESTER.
SWIVEL-LOOPS FOR FIRE-ARMS.



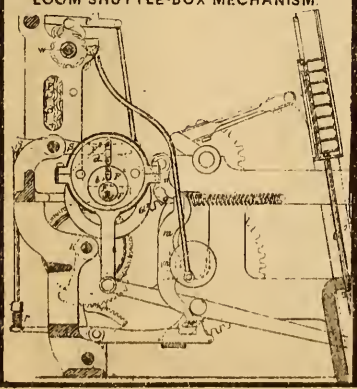
JOSEPH WOOD. RAILWAY CROSSINGS.
121,836



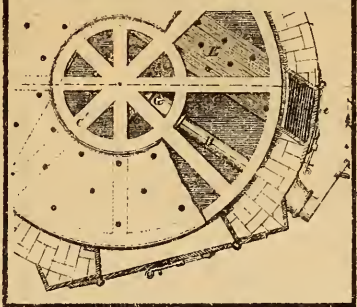
121,837 ELVIN S. ARMSTRONG.
BEE-HIVES.

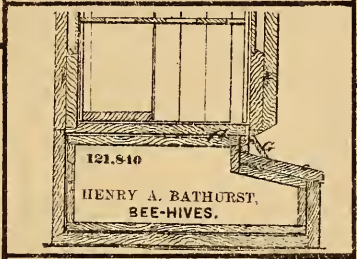


121,838 JOHN ASHWORTH.
LOOM SHUTTLE-BOX MECHANISM.



121,839 AULL AND AULL. BAKING-OVENS.

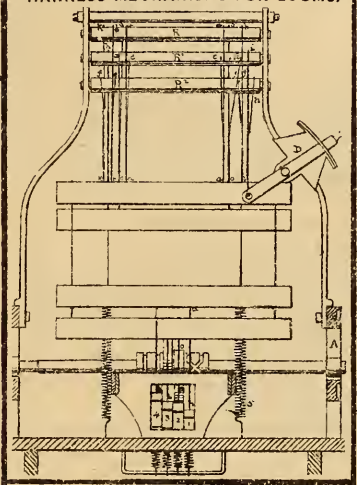




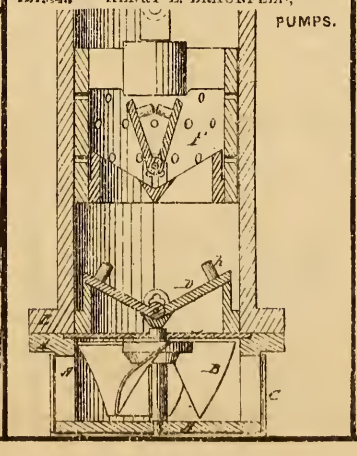
121,840
HENRY A. BATHURST.
BEE-HIVES.

121,841 BERNDT AND BARSCH.
FASTENING CARRIAGE-WHEELS.

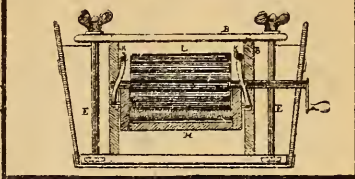
121,842 JAMES BOOTH.
HARNESS MECHANISMS FOR LOOMS.



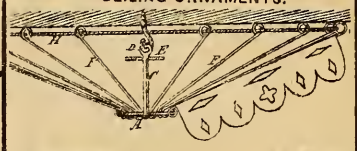
121,843 HENRY E. BRAUNFELD.
PUMPS.



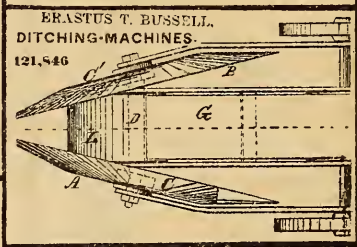
121,844 ROBERT M. BRUCE.
WASHING-MACHINES.



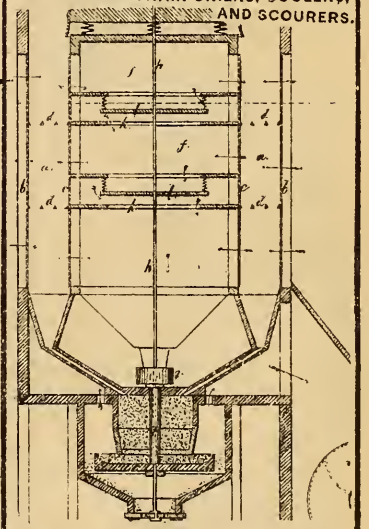
121,845 ERASTUS T. BUSSELL.
CEILING ORNAMENTS.



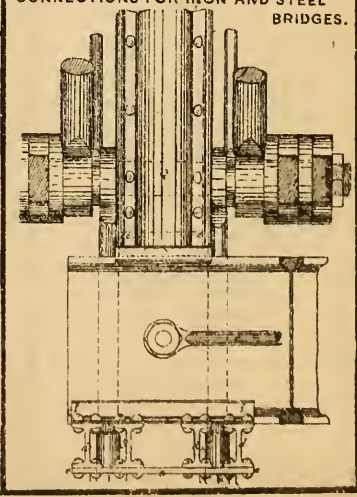
ERASTUS T. BUSSELL.
DITCHING-MACHINES.
121,846



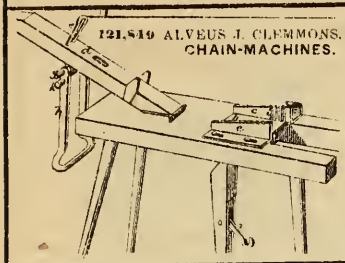
121,847 CHICHESTER AND CHICHESTER.
GRAIN-DRIERS, COOLERS, AND SCOURERS.



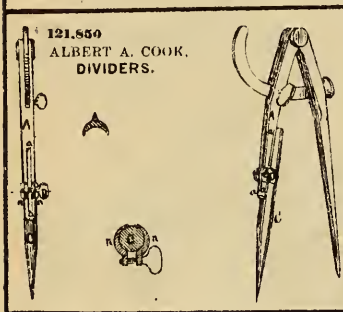
121,848 CLARKE AND BONZANO.
CONNECTIONS FOR IRON AND STEEL BRIDGES.



121,849 ALVEUS J. CLEMMONS. CHAIN-MACHINES.



121,850 ALBERT A. COOK. DIVIDERS.



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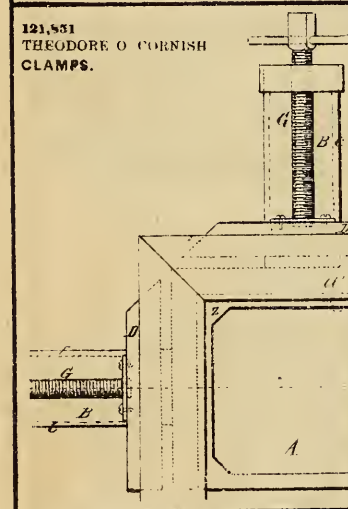
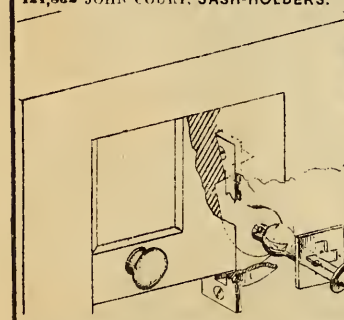
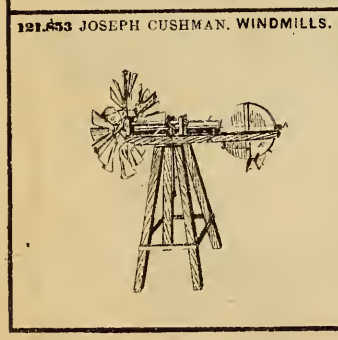


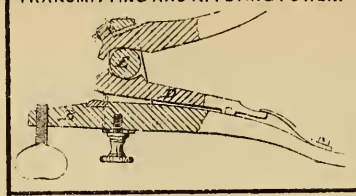
121,852 JOHN COURT. SASH-HOLDERS.



121,853 JOSEPH CUSHMAN. WINDMILLS.



121,854 THOMAS DAMON APPARATUS FOR TRANSMITTING AND APPLYING POWER.



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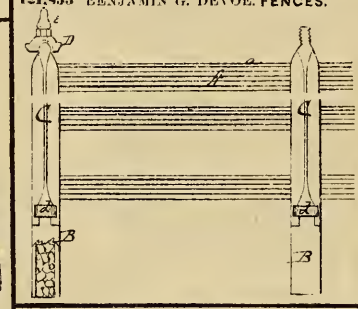
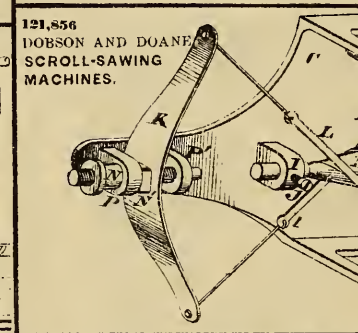
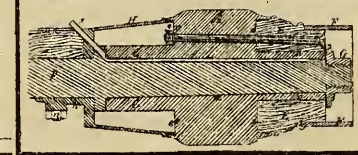


121,856 DOBSON AND DOANE. SCROLL-SAWING MACHINES.



121,857 WILLIAM T. DOLE CARRIAGE-HUB

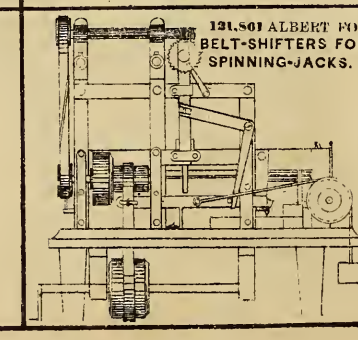


121,858 NEPHTHALI A. DURHAM. DENTAL FORCEPS.

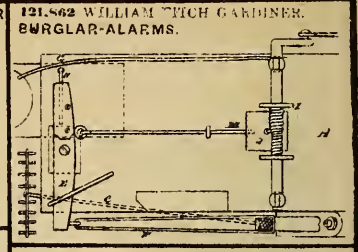
121,859 DUXON AND DUXON MANUFACTURE OF JAPANNED OR ENAMELED HORSE-COLLARS.

121,860 DAVID EVANS. PAPERING OR PUTTING UP NEEDLES.

121,861 ALBERT FOX BELT-SHIFTERS FOR SPINNING-JACKS.

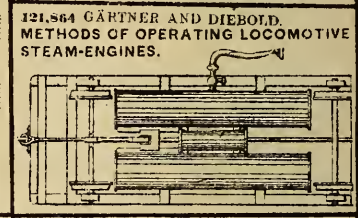


121,862 WILLIAM PITCH GARDINER. BURGLAR-ALARMS.

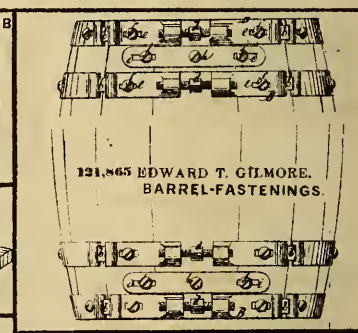


121,863 JAMES H. GARRETT. HARNESS-PADS.

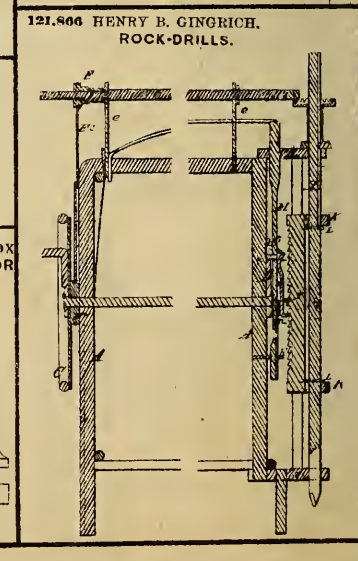
121,864 GÄRTNER AND DIEBOLD. METHODS OF OPERATING LOCOMOTIVE STEAM-ENGINES.



121,865 EDWARD T. GILMORE. BARREL-FASTENINGS.



121,866 HENRY B. GINGRICH. ROCK-DRILLS.



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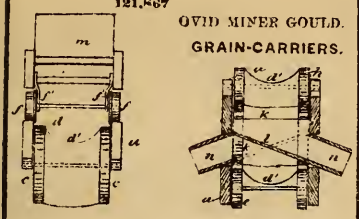
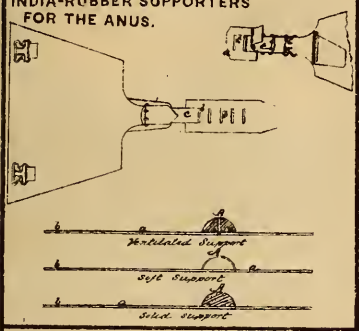
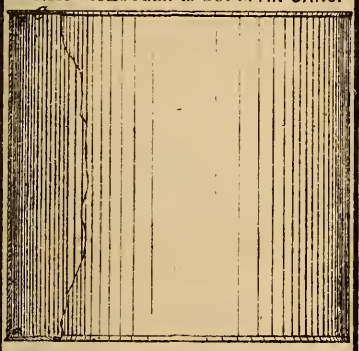
GRAIN-CARRIERS.



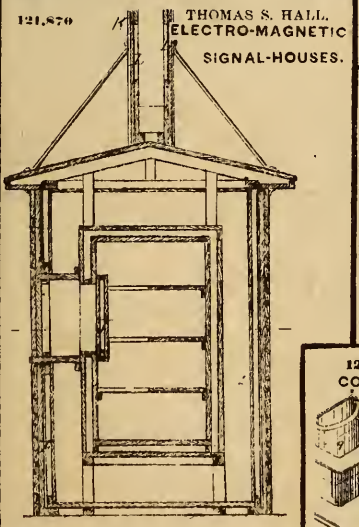
121,868 HIRAM GREENTREE.
INDIA-RUBBER SUPPORTERS FOR THE ANUS.



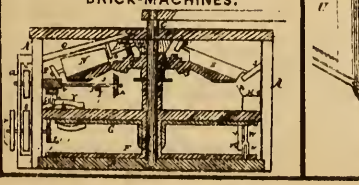
121,869 SCHUYLER E. GUNN. TIN CANS.



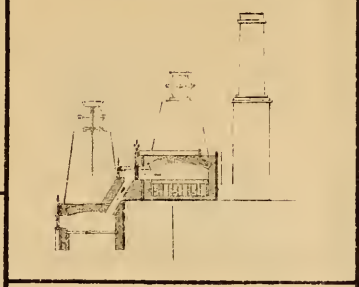
121,870 THOMAS S. HALL.
ELECTRO-MAGNETIC SIGNAL-HOUSES.



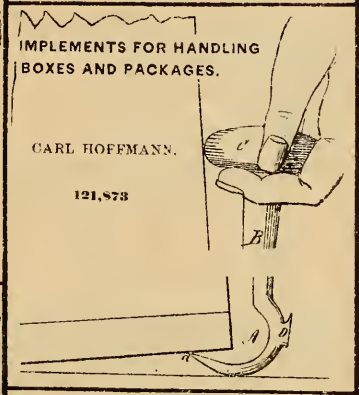
121,871 DANIEL HESS.
BRICK-MACHINES.



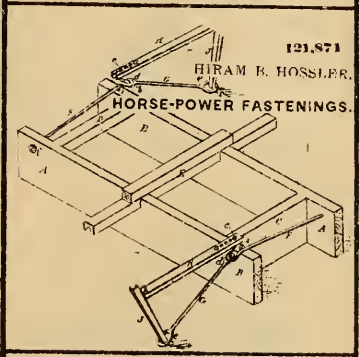
121,872 THOMAS CALLENDER HINDE.
MANUFACTURE OF IRON AND STEEL.



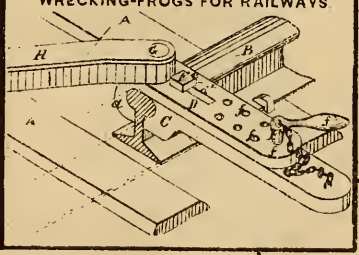
IMPLEMENTS FOR HANDLING BOXES AND PACKAGES.
CARL HOFFMANN.
121,873



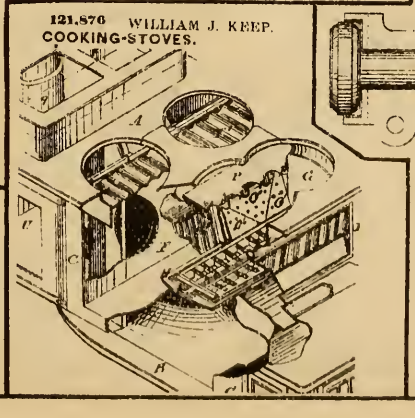
121,871
HIRAM B. HOSSLER.
HORSE-POWER FASTENINGS.



121,875 SYLVESTER M. HUDSON.
WRECKING-FROGS FOR RAILWAYS.



121,876 WILLIAM J. KEEP.
COOKING-STOVES.



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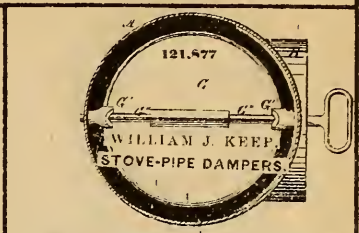
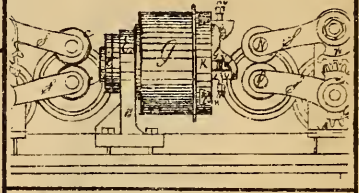
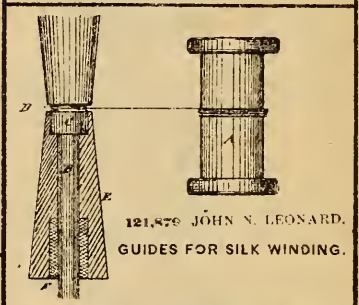
WILLIAM J. KEEP.
STOVE-PIPE DAMPERS.



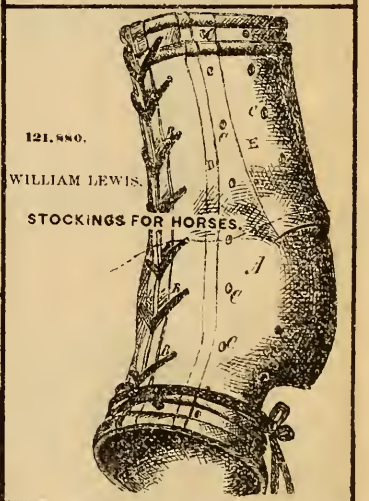
121,878 BENJAMIN LAWRENCE.
LATHES.

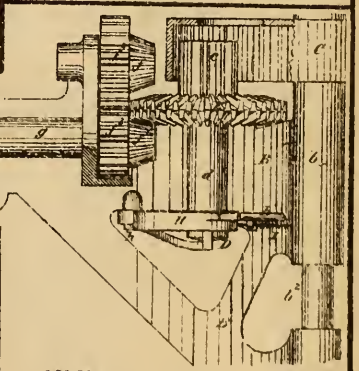




121,879 JOHN N. LEONARD.
GUIDES FOR SILK WINDING.

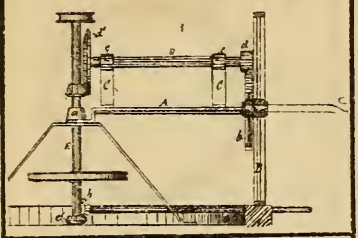
121,880.
WILLIAM LEWIS.
STOCKINGS FOR HORSES.



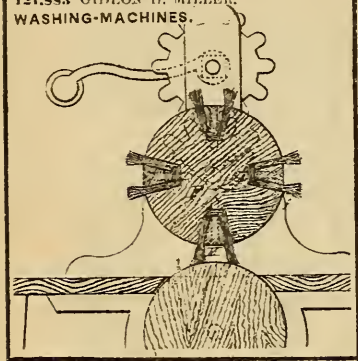


121,881
JOHN P. MANNY.
HARVESTER-GEARINGS.

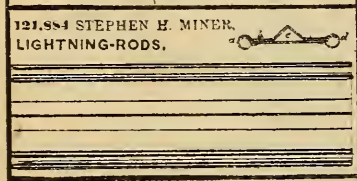
121,882 MARMADUKE AND STEWART. HORSE-POWERS.



121,883 GIDEON H. MILLER. WASHING-MACHINES.



121,884 STEPHEN H. MINER. LIGHTNING-RODS.



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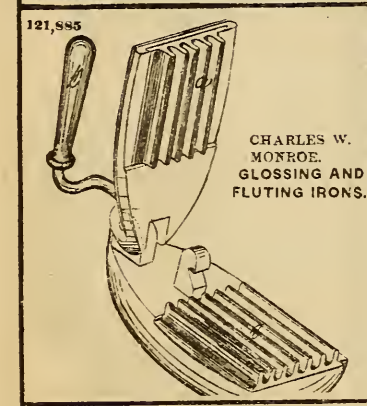
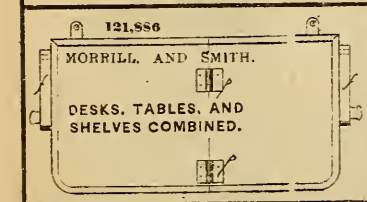
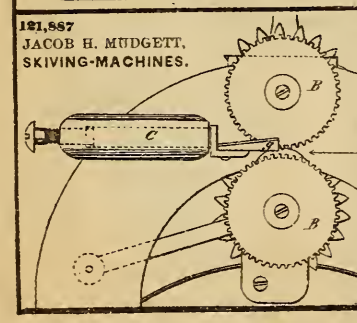


CHARLES W. MONROE. GLOSSING AND FLUTING IRONS.

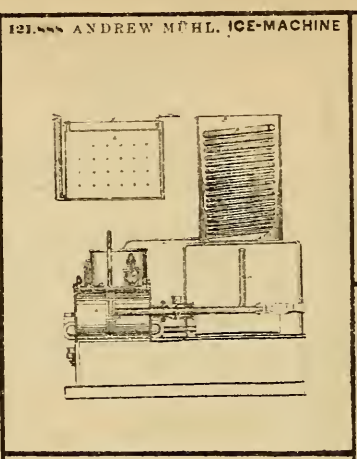
121,886 MORRILL AND SMITH. DESKS, TABLES, AND SHELVES COMBINED.



121,887 JACOB H. MUDGETT. SKIVING-MACHINES.

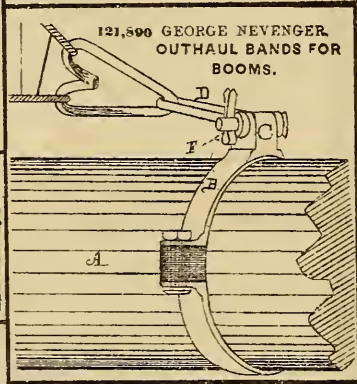


121,888 ANDREW MÜHL. ICE-MACHINE

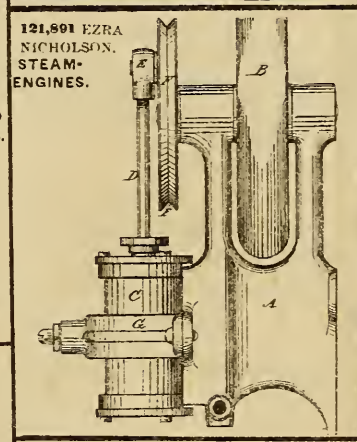


121,889 CHARLES MOTIER NES. MANUFACTURE OF STEEL IN CRUCIBLES

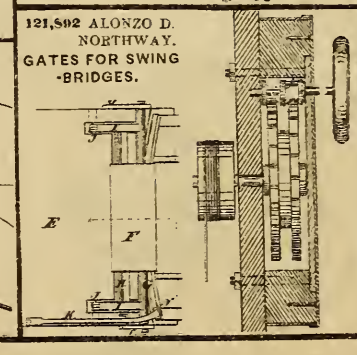
121,890 GEORGE NEVENGER. OUTHAUL BANDS FOR BOOMS.



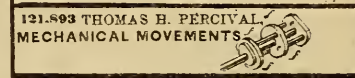
121,891 EZRA NICHOLSON. STEAM-ENGINES.



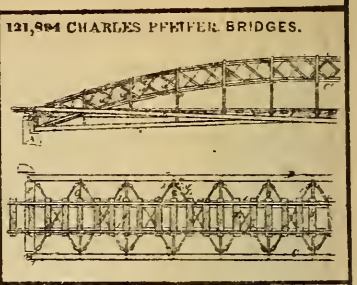
121,892 ALONZO D. NORTHWAY. GATES FOR SWING-BRIDGES.



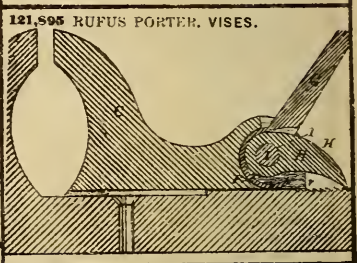
121,893 THOMAS H. PERCIVAL. MECHANICAL MOVEMENTS.



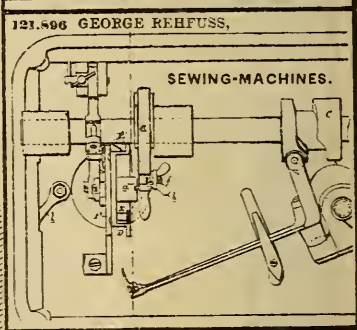
121,894 CHARLES PEETER. BRIDGES.



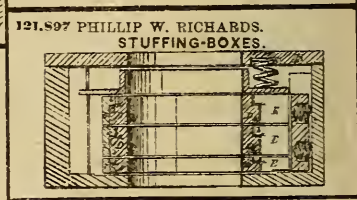
121,895 RUFUS PORTER. VISES.



121,896 GEORGE REHFUSS. SEWING-MACHINES.

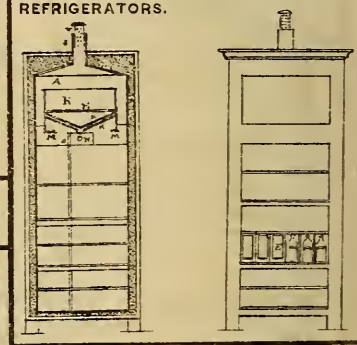


121,897 PHILLIP W. RICHARDS. STUFFING-BOXES.

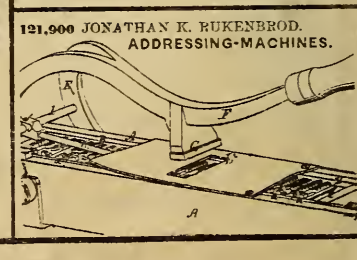


121,898 EDWARD A. L. ROBERTS. MANUFACTURE OF NITRO-GLYCERINE.

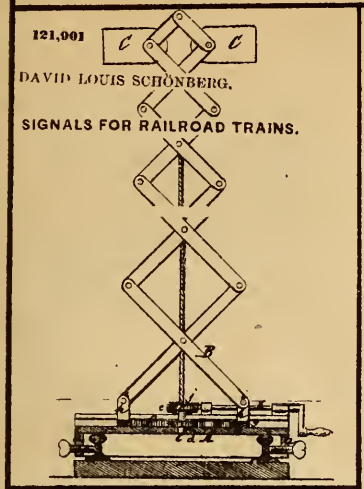
121,899 JEREMIAH ROHRER. REFRIGERATORS.



121,900 JONATHAN K. RUKENBROD. ADDRESSING-MACHINES.

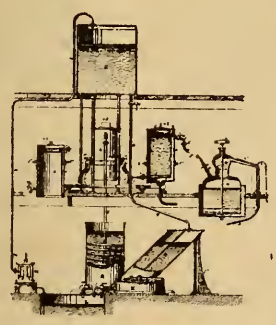


121,901 DAVID LOUIS SCHÖNBERG.
SIGNALS FOR RAILROAD TRAINS.



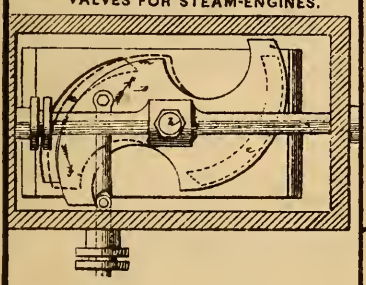
121,902 SEEGER AND BOYD. PRESERVING AND USING HOPS IN BREWING.

121,903 THOMAS SIM. APPARATUS FOR SEPARATING FATTY MATTERS FROM VEGETABLE SUBSTANCES.

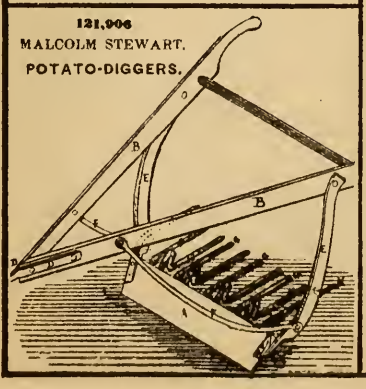


121,904 CICERO A. SIMMONS.
MEDICAL COMPOUNDS

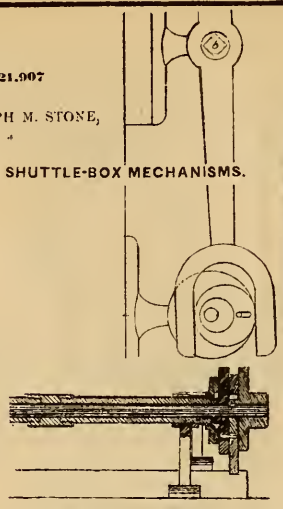
121,905 CHARLES B. SMITH.
VALVES FOR STEAM-ENGINES.



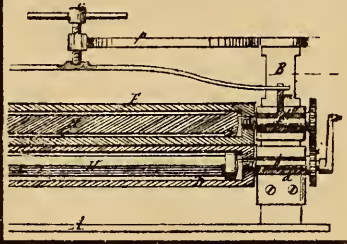
121,906 MALCOLM STEWART.
POTATO-DIGGERS.



121,907 JOSEPH M. STONE,
LOOM SHUTTLE-BOX MECHANISMS.



121,908 GILBERT F. TAYLOR.
IRONING-MACHINES.



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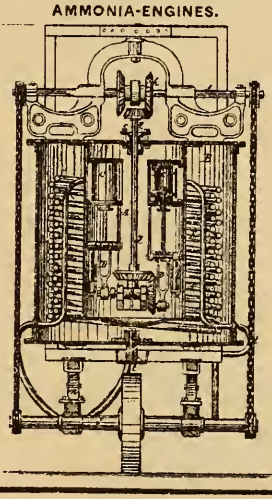
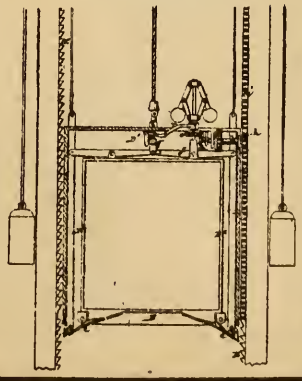
AMMONIA-ENGINES.



121,910 THEODORE TERRELL.
HOISTING APPARATUS.



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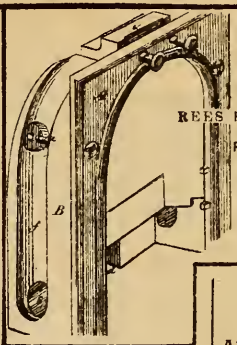
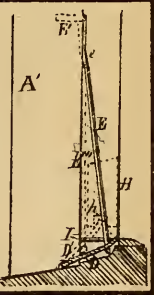
FIRE-PLACES.



121,912 JOHN THOMSON.
WEATHER-STRIPS.



121,913 HENRY A. TILDEN,
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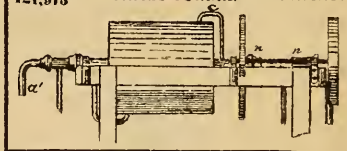
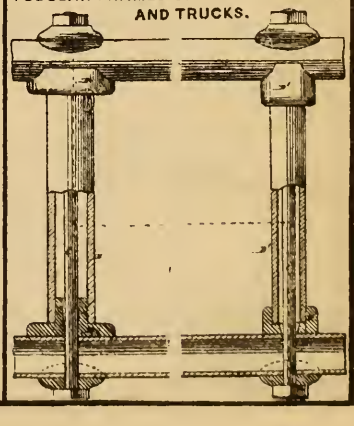
121,914 TODD AND TODD.
COMBINED WATER-GAUGES AND COCKS.

121,915 JAMES TURNER DRIERS.



121,916 BECKWITH W. TUTHILL.
TUBULAR FRAMES OF WHEELBARROWS AND TRUCKS.



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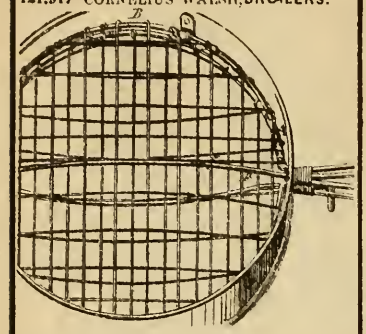
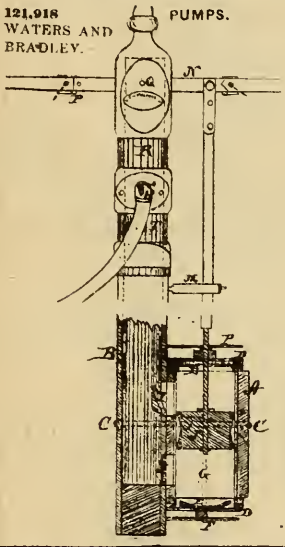
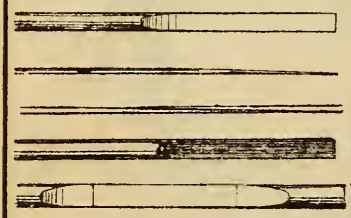
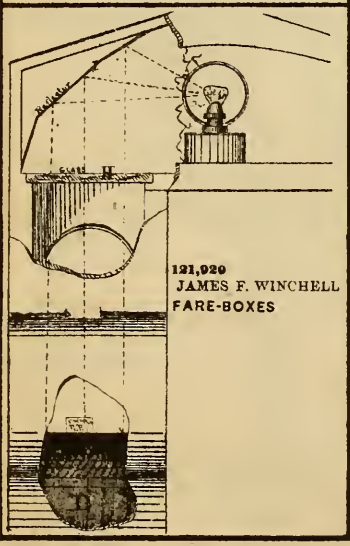


121,918 WATERS AND BRADLEY. PUMPS.



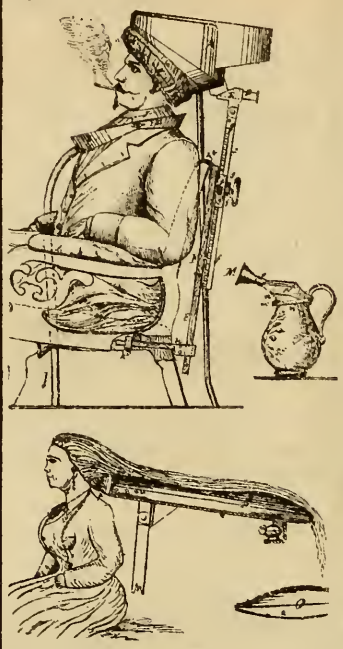
121,919 GARDNER A. WATKINS, PREPARING RATTAN FOR CHAIR-SEATS



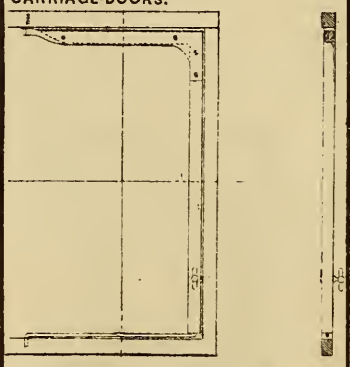


121,920 JAMES F. WINCHELL FARE-BOXES

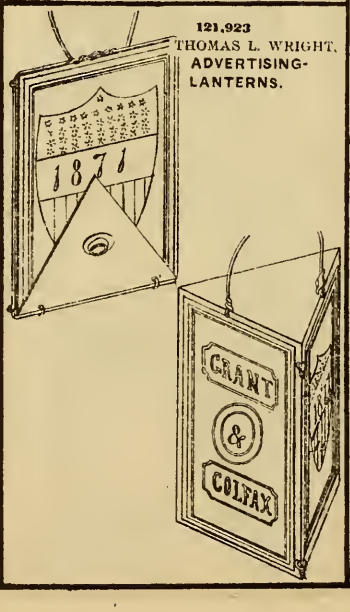
121,921 MARK L. WINN, SHAMPOOING APPARATUS.



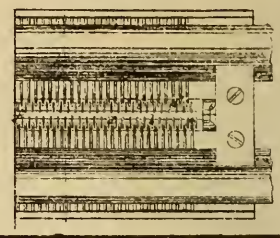
121,922 ALEXANDER WRIGHT. CARRIAGE-DOORS.



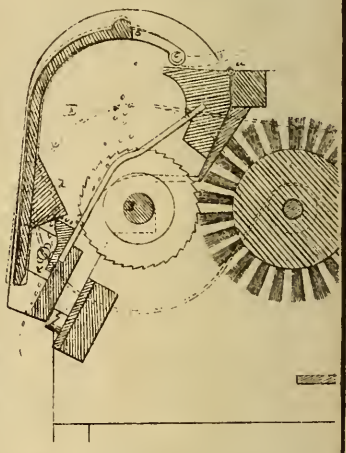
121,923 THOMAS L. WRIGHT, ADVERTISING-LANTERNS.



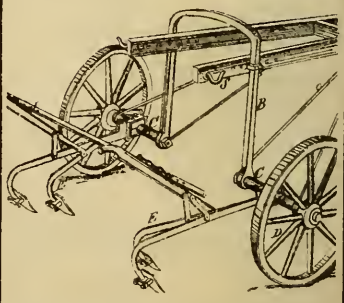
121,924 NATHANIEL CLARK, KNITTING-MACHINES



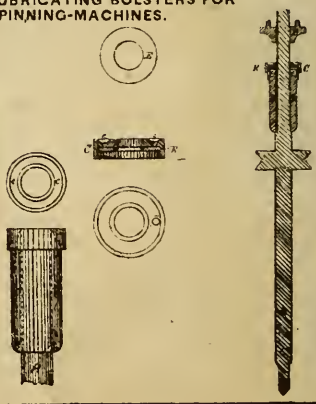
4,664 DANIEL PRATT, COTTON-GINS.



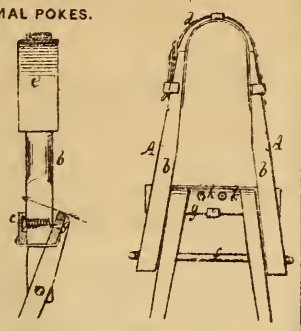
4,665 FLAVIUS J. UNDERWOOD, CULTIVATORS.



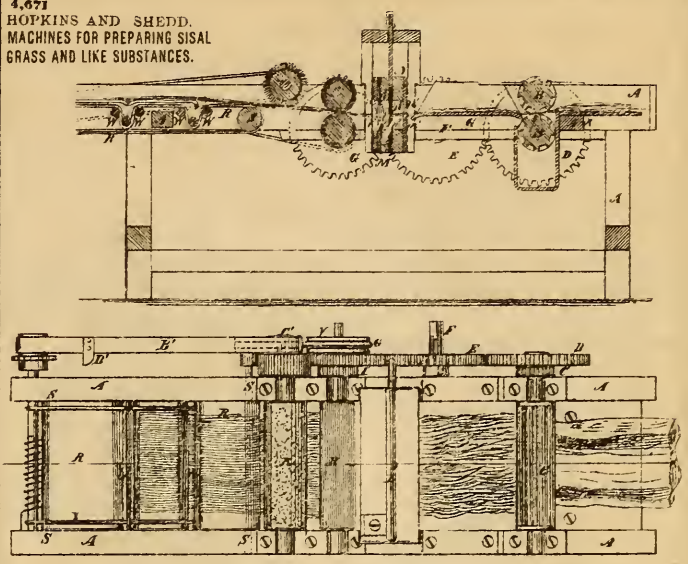
4,666 MOSES P. WILMARTH LUBRICATING BOLSTERS FOR SPINNING-MACHINES.



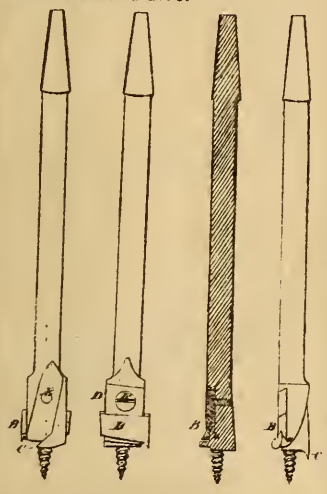
4,667 HARLOW F. CHAPIN, ANIMAL POKES.



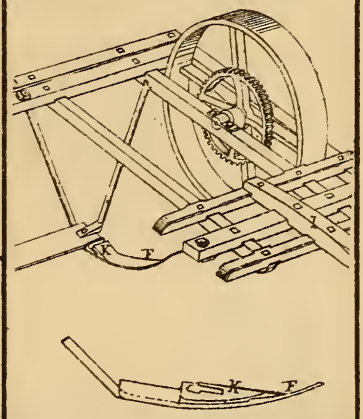
4,671 HOPKINS AND SHEDD, MACHINES FOR PREPARING SISAL GRASS AND LIKE SUBSTANCES.



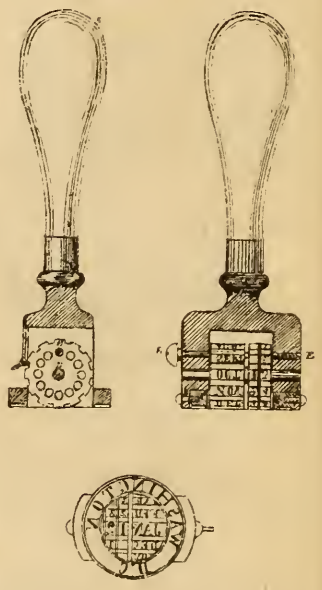
4,668 WILLIAM A. CLARK, EXPANSIVE BITS.



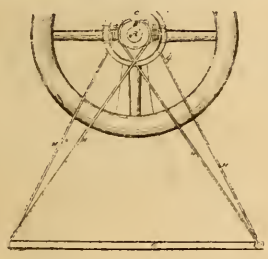
4,672 4,673 WILLIAM F. KETCHUM, HARVESTERS.



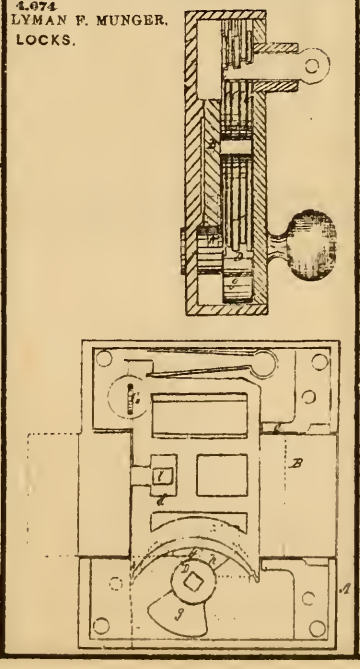
4,675 THOMAS J. W. ROBERTSON, HAND-STAMPS.



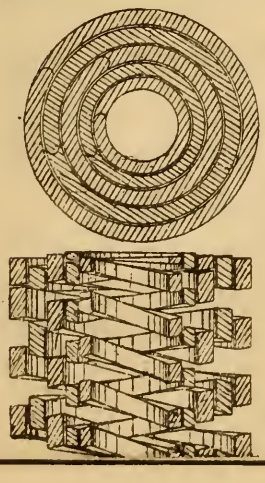
4,669 WARREN GLOVER, TREADLE ATTACHMENTS FOR SEWING-MACHINES.



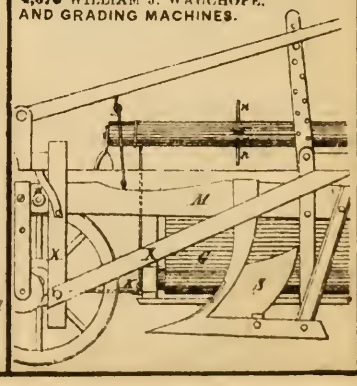
4,674 LYMAN F. MUNGER, LOCKS.



4,670 ALBERT HEBBARD, CAR-SPRINGS.



4,676 WILLIAM J. WAUCHOPE, AND GRADING MACHINES.



ILLUSTRATIONS OF PATENTS
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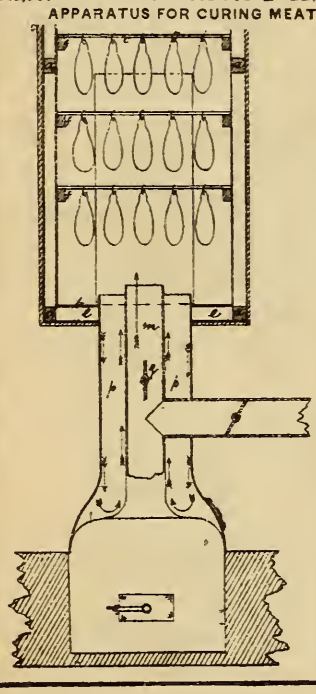
THE UNITED STATES PATENT OFFICE

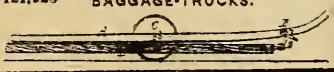
DECEMBER 19, 1871.

121,925 WILLIAM GIBSON BELL.
APPARATUS FOR CURING MEAT.



121,927 MELLEN BRAY,
BOOTS AND SHOES.

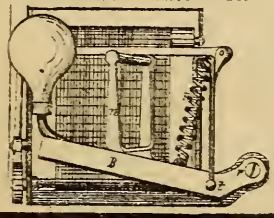
WILLIAM HAMMOND BROWN,
121,928 BAGGAGE-TRUCKS.



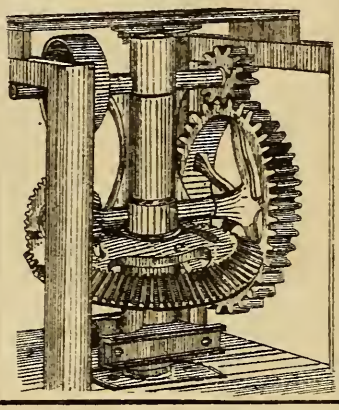
121,929 CHRISTIAN BURGER.
PIPE-COUPLINGS.

DOMINICK CARDULLO. LIQUID SOAPS.
121,930

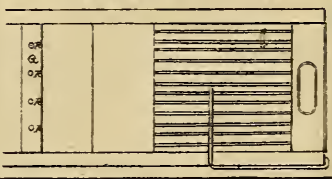
CLAGUE AND RANDALL. 121,931
ADDRESSING-MACHINES.



121,932 WILLIAM DEERING,
HORSE-POWERS.



121,933 GEORGE H. DIEHL.
STEAM-BOILER FURNACES.



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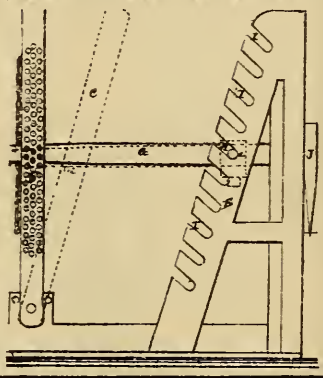
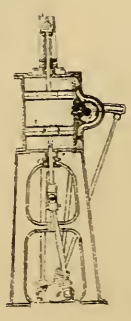
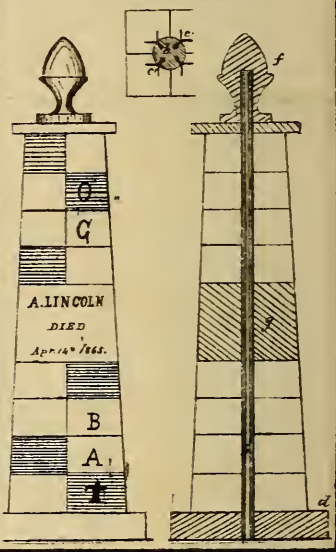
THOMAS DOUGLASS. HEAD-BLOCKS.



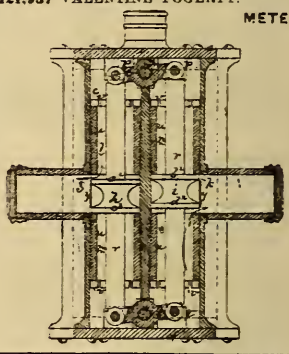
EDWARD EVANS. STEAM-ENGINES.
121,935



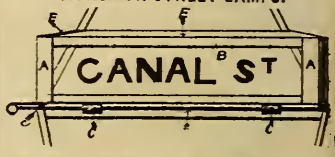
121,936 GEORGE W. FISHER.
TOY MONUMENTS.



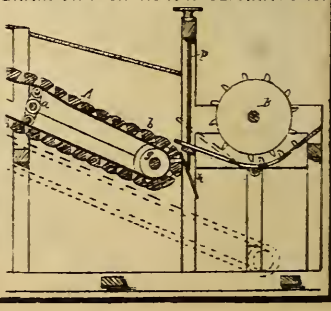
121,937 VALENTINE FOGERTY.
METERS.



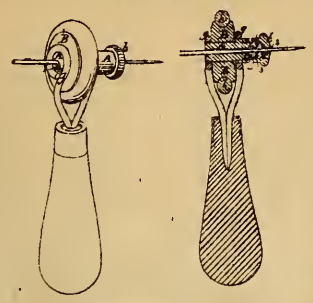
JOHN T. FOLEY. 121,938
SIGNS FOR STREET-LAMPS.



121,939 CHARLES S. HALL,
GRAIN-THRASHERS AND SEPARATORS.



121,940 THOMAS HARRIS.
NEEDLE-SHARPENERS.



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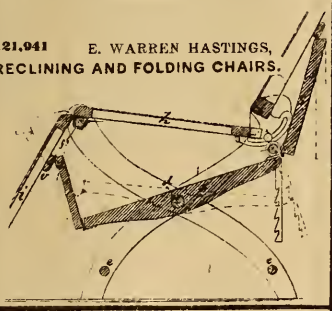
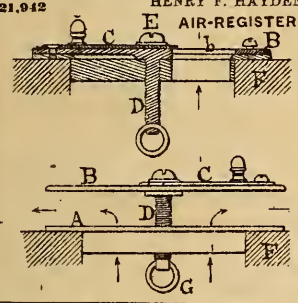
RECLINING AND FOLDING CHAIRS.

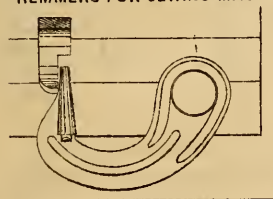


121,942 HENRY F. HAYDEN,
AIR-REGISTERS.



121,943 MICHAEL M. HERSMAN,
COFFINS.

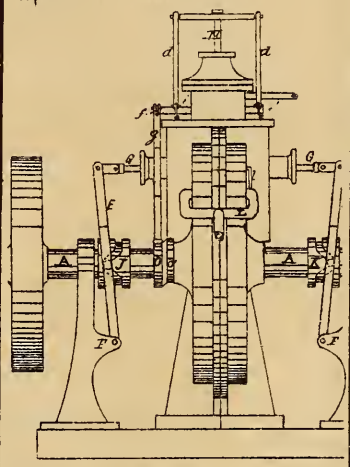
121,944 WILLIAM JOHNSON,
HEMMERS FOR SEWING-MACHINES.



121,945 ERNST KIRSCH
ROCKING-HORSES.

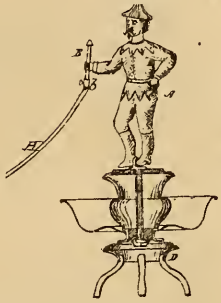
121,946
LA MONTE, SAXE, AND CLAYTON,
COLORED PAPER.

121,947
ROTARY ENGINES. RUFUS LEACH,

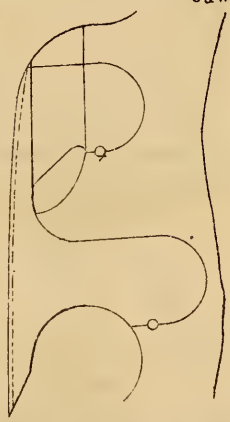


121,948 CHARLES LENNIG.
REMOVING TIN FROM TIN-SCRAP.

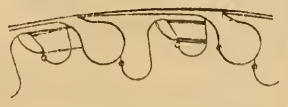
JOSEPH LESSLER,
121,949 LAWN-SPRINKLERS.



CALEB V. LITTLEPAGE, Saws.
121,950



121,951 CALEB V. LITTLEPAGE,
METHODS OF FORMING SAW-TEETH.



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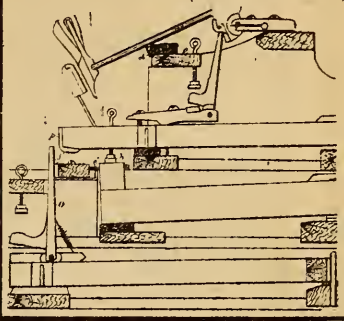
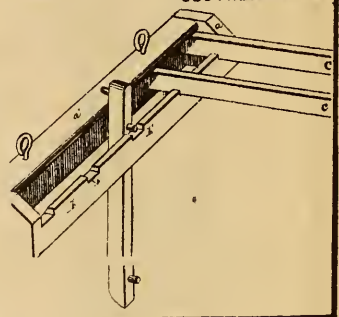
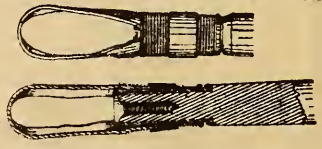
PIANO-FORTE ACTIONS.
LORENZO MATT.



DANIEL MILLER,
121,953 CLOTHES-RACKS.

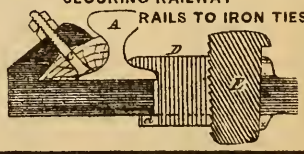


121,954 WILLIAM H. MILLIKIN.
WHIP-STOCKS.

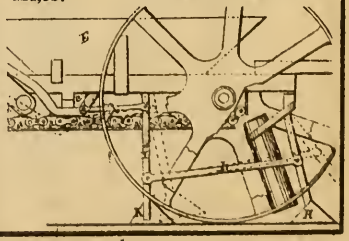


121,955 MOORE AND BOYD,
CROCKERY AND LAMP-CHIMNEY MOPS.

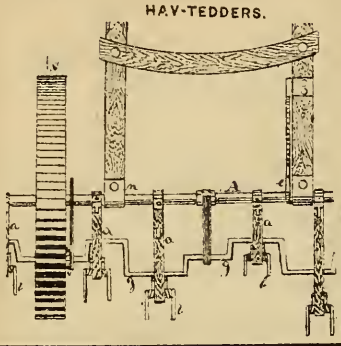
JASON NEWTON,
121,956 SECURING RAILWAY
RAILS TO IRON TIES.



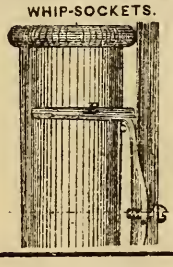
ALBERT E. PAYNE,
121,957 POTATO-PLANTERS.



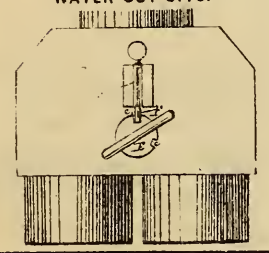
121,958 JOHN G. PERRY.
HAY-TEDDERS.



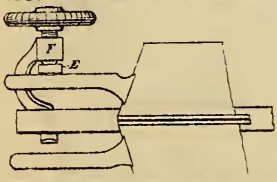
121,959 GEORGE M. PETERS.
WHIP-SOCKETS.



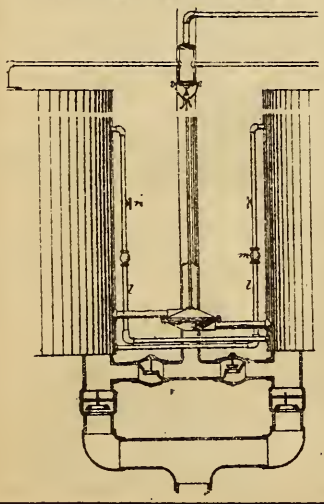
121,960 PHILIP B. PETERS.
WATER CUT-OFFS.



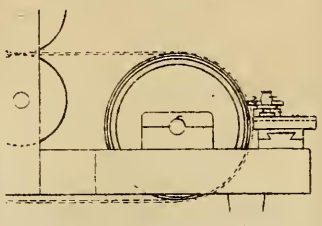
121,961 CHARLES J. C. PETERSEN.
DEVICES FOR SUPPORTING PIPE-CORES.



121,962 WILLIAM EDGAR PRALL.
AUTOMATIC STEAM-TRAPS.



121,963 BENJAMIN F. RADFORD,
MANUFACTURE OF BELT-KNIVES.



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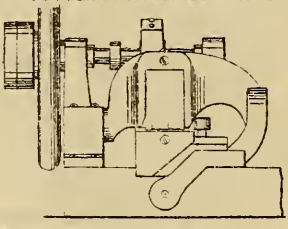
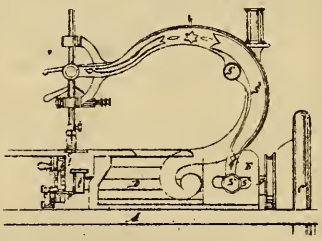
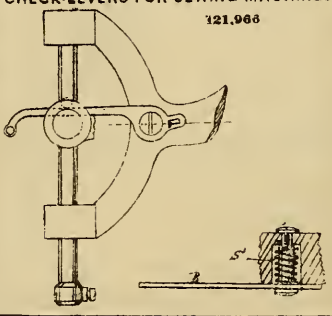
CUTTERS FOR BARBED NAILS.



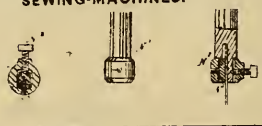
121,965 JEROME B. SECOR,
SEWING-MACHINES.



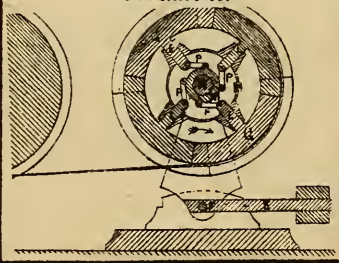
JEROME B. SECOR,
CHECK-LEVERS FOR SEWING-MACHINES.
121,966



121,967 JEROME B. SECOR.
NEEDLE-HOLDING DEVICES FOR
SEWING-MACHINES.

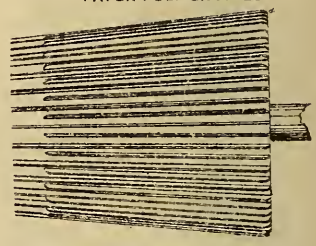


121,968 HENRY F SHAW,
GOVERNORS.

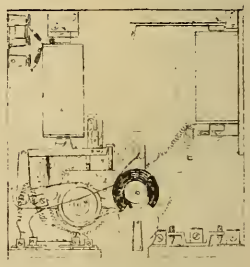


121,969 SAMUEL J. SHAW.
MODES OF CUTTING BOOT AND
SHOE SOLES.

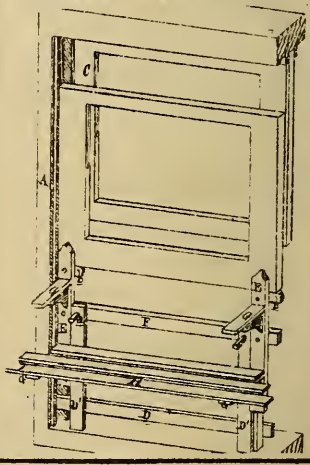
121,970 CHARLES SMITH.
PAPER-PULP ENGINES.



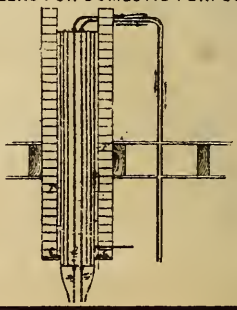
121,971 JOSEPH W. STOVER
PROTECTIVE ELECTRIC TELEGRAPHS.



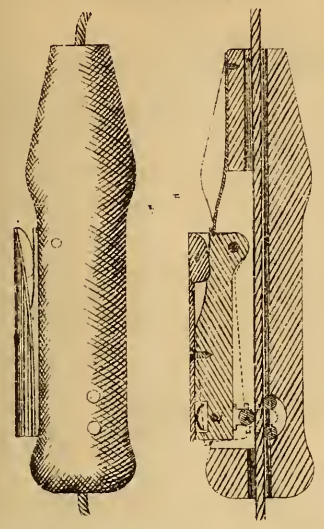
121,972 FRANCIS W. TEST.
FLOWER-STANDS FOR WINDOWS.



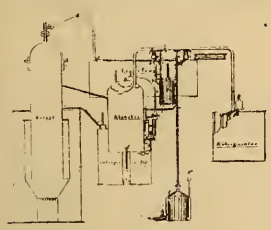
121,973 FRANKLIN TILL.
BOILERS FOR DOMESTIC PURPOSES.



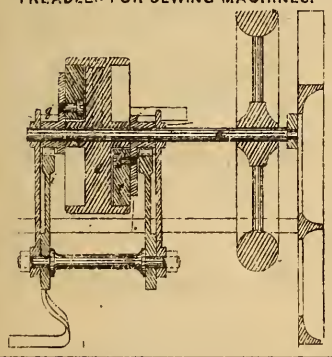
121,974 JOHN TURNBULL.
HAND-PROTECTORS.



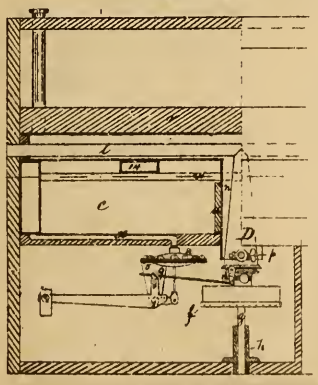
121,975 ALEXANDER C. TWINING.
MACHINES USING AMMONIA.



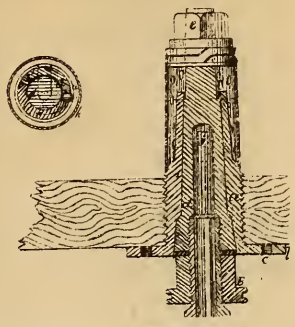
121,976 JOHN B. WINSLOW,
TREADLES FOR SEWING-MACHINES.



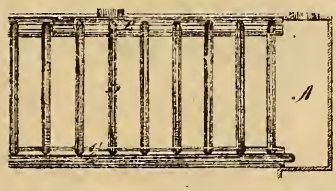
121,977 WOODWARD AND MILLETT.
INCUBATORS.



121,978 JAMES H. ALEXANDER.
FAUCETS



121,979 JOHN HENRY ANSELL
STEAM-BOILERS.



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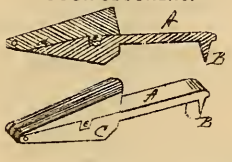
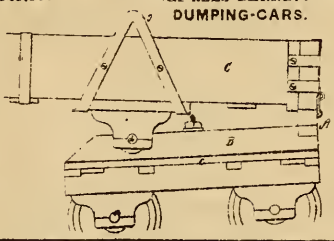
DOOR-SECURERS.



121,981 CHARLES BARRETT
DUMPING-CARS.

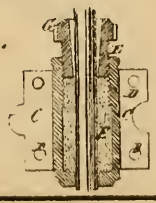


121,982
WILLIAM N. BARTHOLOMEW
RUBBER ERASERS.

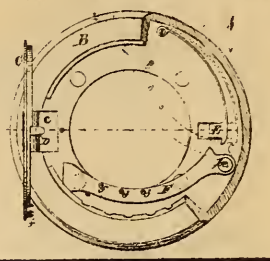
121,983 CALVIN T. BEEBE.
MANUFACTURE OF BARN-FORKS.

121,984 LOUIS BODENHEIMER.
COMPOUND OR FEVER-AND-AGUE CURE.

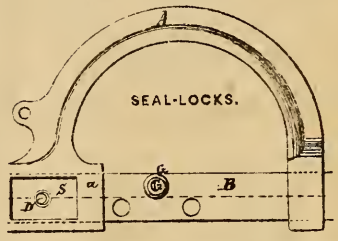
121,985
HENRY BOLTHOFF.
STAMP-GUIDES.



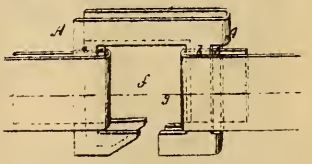
121,986 FRANKLIN W. BROOKS,
REVENUE-STAMP CANCELERS.



121,987 BROOKS AND EVERETT.
SEAL-LOCKS.

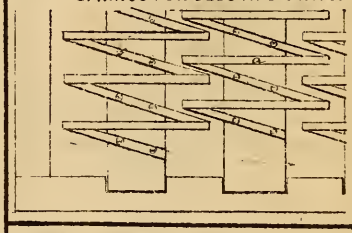


121,988 FLOYD G. BROWN. BALE-TIES.

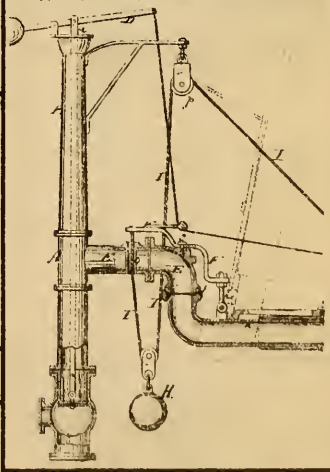


121,989 ISAAC BROWN,
CURE OF CHILLS AND FEVER

121,990 JAMES P. CHAMBERLIN.
SPRINGS FOR BEDS AND SEATS.

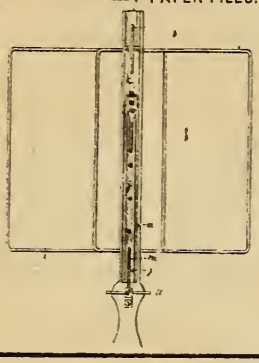


121,991 DANFORTH CHENEY,
WATERING DEVICES FOR RAILROADS.



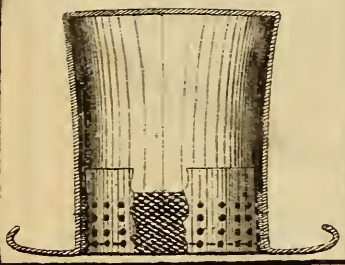
121,992 SAMUEL L. CLEMENS,
DETACHABLE STRAPS FOR GARMENTS.

121,993 LOUIS COHN. PAPER-FILES.

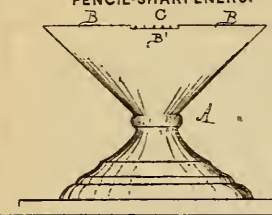


LEFFERT R. CORNELL. 121,994
BRINE FOR MANUFACTURE OF SALT.

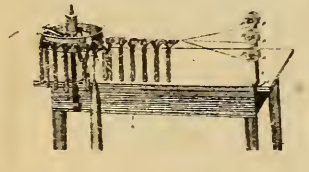
121,995 WILLIAM DALE.
VENTILATORS FOR HATS OR CAPS.



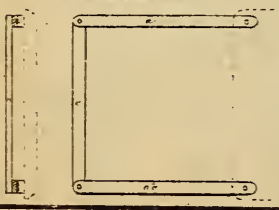
121,996 DAVIS AND ELLIOTT.
PENCIL-SHARPENERS.



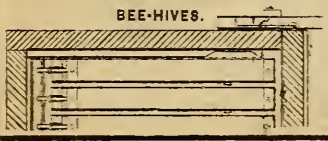
121,997 NARCISSE DEMONGEOT.
HAIR WEAVING AND
MOUNTING APPARATUS.



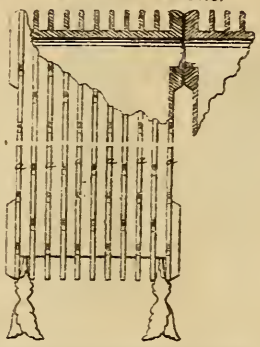
121,998 ARTHUR DICKINSON.
MEANS FOR EXTENDING THE TABLES
OF SEWING-MACHINES.



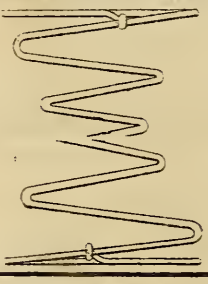
121,999 DODSON AND BRAY.
BEE-HIVES.



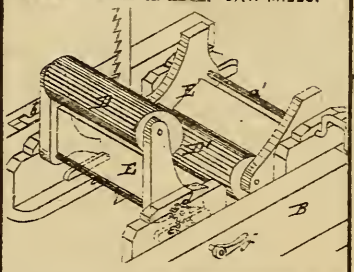
122,000 ERASMUS P. DOYEN.
STEAM-RADIATORS.



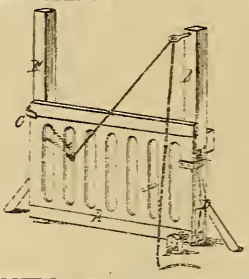
122,001 J. JOSEPH EAGLETON,
JAPANNED FURNITURE-SPRINGS.



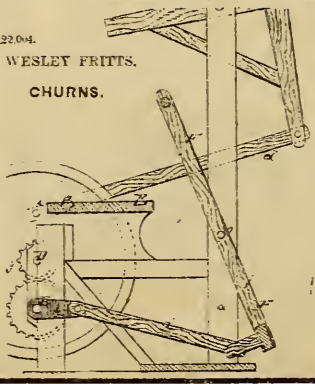
122,002 DAVID A. EDIE. SAW-MILLS.



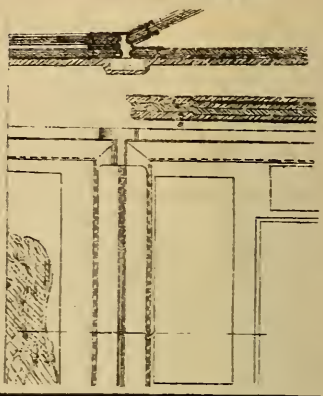
122,003 JOHN FAUSSETT. GATES.



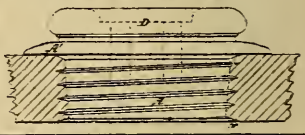
122,004.
WESLEY FRITTS.
CHURNS.



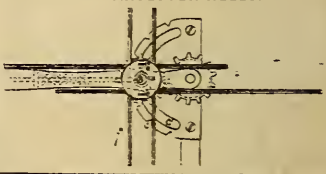
122,005 WILLIAM S. GAVAN.
ADVERTISING-ALBUMS.



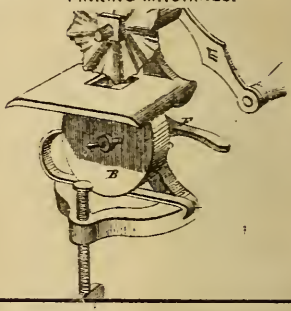
122,006 JAMES GILLIES.
BUNG-INSERTERS.



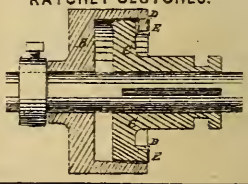
122,007 GEORGE S. GRIER.
HARVESTER-REELS.



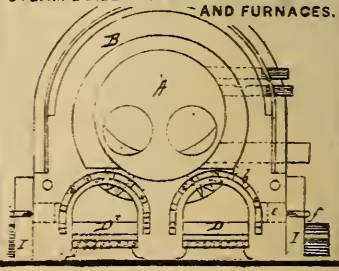
122,008 THOMAS HAGERTY.
PINKING-MACHINES.



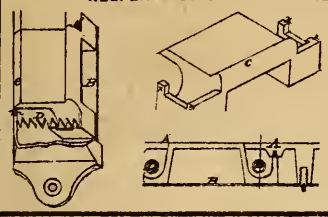
122,009 ABIJAH WHITNEY HALL.
COMBINED FRICTION AND
RATCHET CLUTCHES.



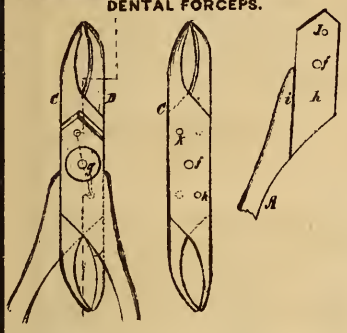
122,010 WILLIAM P. HALL
STEAM-BOILER CASINGS
AND FURNACES.



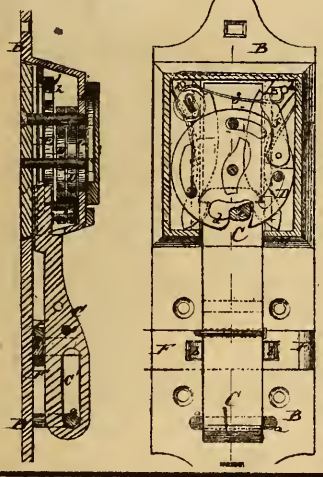
122,011 WILLIAM HARVEY,
KEEPERS FOR DOOR-LATCHES.



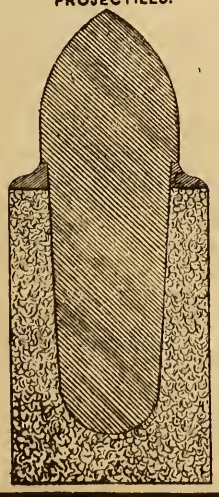
122,012 LEONARD GEORGE HASKINS,
DENTAL FORCEPS.



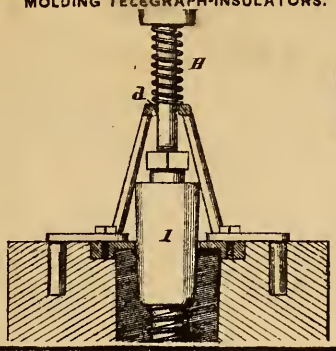
122,013 WILLIAM D. HEISTER,
HASP-LOCKS.



122,014 J. HENRY HELM,
PROJECTILES.

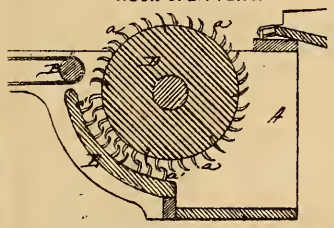


122,015 ROBERT HEMINGRAY,
MOLDING TELEGRAPH-INSULATORS.

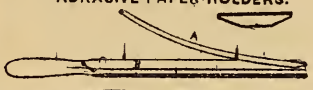


122,016 SAMUEL S. HICKOCK,
CASTERS FOR FURNITURE.

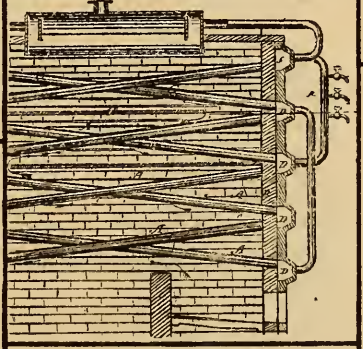
122,017 BERRY HOLLIS,
HUSK-SPLITTERS.



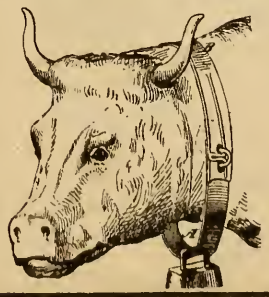
122,018 GEORGE A. HOWE,
ABRASIVE PAPER-HOLDERS.



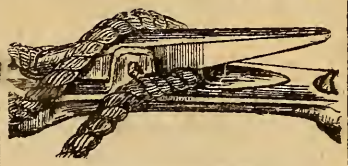
122,019 DEWITT C. HOWELL.
SECTIONAL STEAM-GENERATORS.



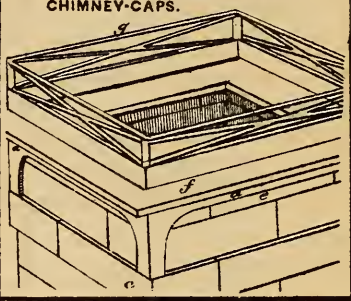
122,020 COW-BELL STRAPS.
JOSEPH H. HUGHS AND ABSALOM HUGHS.



122,021 CHARLES JARVIS,
LINE-CONNECTORS.

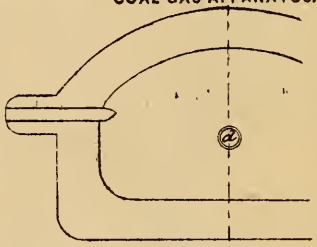


122,022 ANSON B. JOHNSON,
CHIMNEY-CAPS.

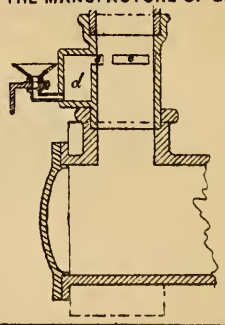


122,023 ALBERT L. JONES,
PAPER FOR PACKING.

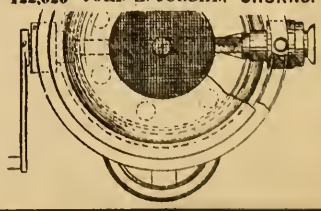
122,024 EDWARD JONES.
COAL-GAS APPARATUS.



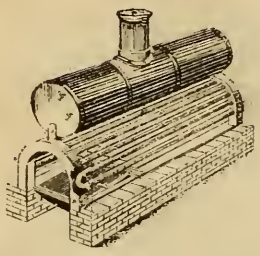
122,025 EDWARD JONES,
APPARATUS FOR
THE MANUFACTURE OF GAS.



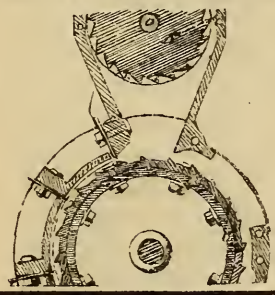
122,026 JOHN A. JORDAN, CHURNS.



122,027 JOHN JOSEPH JORDAN
STEAM-GENERATORS.

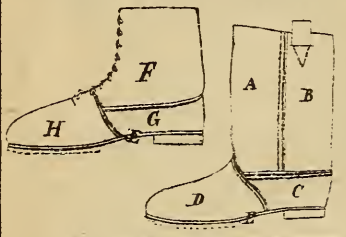


122,028 DAVID KAHNWEILER.
FEED DEVICES FOR HULLING-MACHINES.

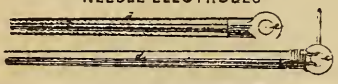


KEARSING AND KEARSING, 122,029
PROCESSES FOR PREPARING GOLD
FOR DENTAL PURPOSES.

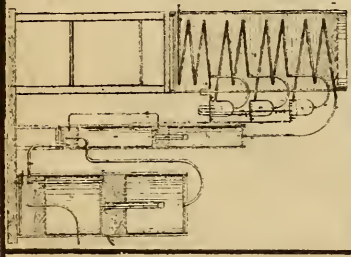
122,030 KELLEHER AND RANDLETT.
MOCCASIN BOOTS AND SHOES.



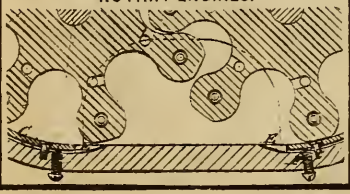
122,031 JEROME KIDDER,
NEEDLE-ELECTRODES



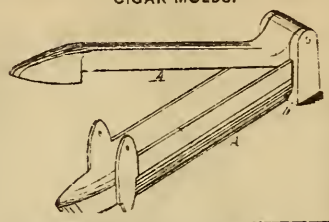
122,032 GOTT-HARD KLEINER,
APPARATUS FOR DISTILLING SPIRITS.



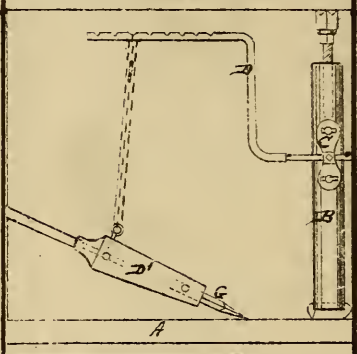
122,033 TRUCESON S. LA FRANCE,
ROTARY ENGINES.



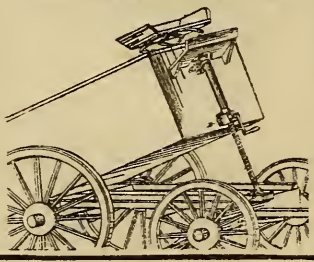
122,034 LAHAYE AND LYONS.
CIGAR-MOLDS.



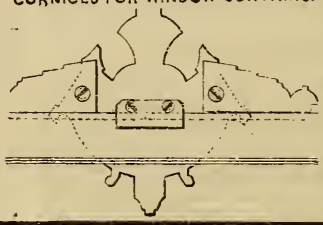
122,035 ISAAC LAMPLUGH,
COAL-MINING TOOLS.



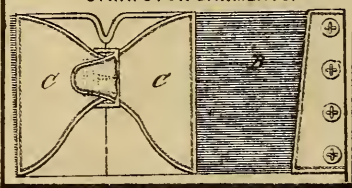
122,036 ROBERT B. LITTLE,
LIFTING-JACKS FOR DUMPING-CARTS.



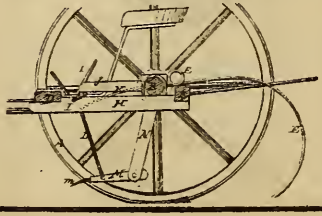
122,037 WILLIAM LLOYD.
CORNICES FOR WINDOW-CURTAINS.



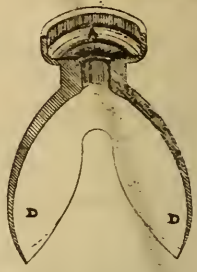
122,038 HENRY C. LOCKWOOD.
ADJUSTABLE AND DETACHABLE
STRAPS FOR GARMENTS.



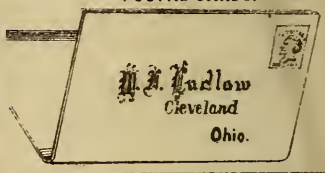
122,039 J. GEORGE LOCKWOOD
HORSE HAY-RAKES.



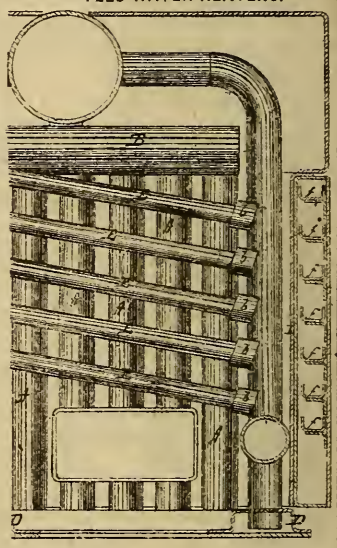
122,040 ALEXANDER LOWE,
UTERINE SUPPORTERS.



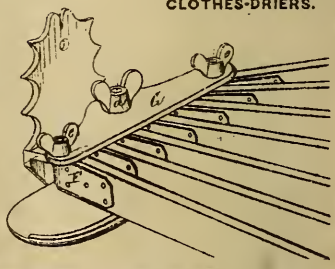
122,041 WASHINGTON I. LUDLOW.
POSTAL-CARDS.



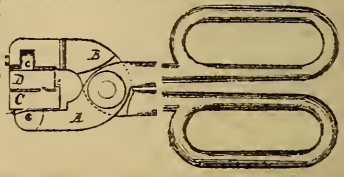
122,042 MIRABEAU N. LYNN,
STEAM-GENERATORS AND
FEED-WATER HEATERS.



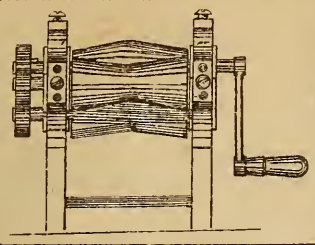
122,013 WILLIAM C. MAYNARD
CLOTHES-DRIERS.



122,044 JAMES W. McKEE,
IMPLEMENTS FOR EMBOSSING FABRICS.

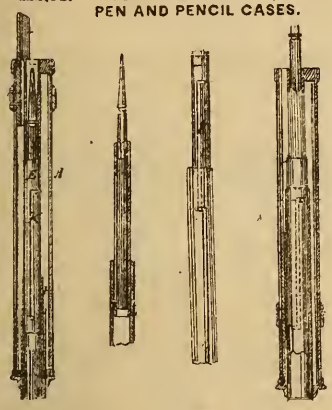


122,045 FREDERICK MEYER, MACHINES FOR FORMING SCALE-PANS.

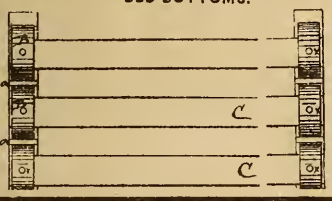


122,046 CHARLES MICKLE, PROPULSION OF VESSELS.

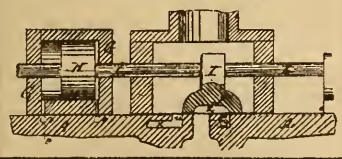
122,047 JOSEPH MONAGHAN, PEN AND PENCIL CASES.



122,048 THOMAS H. B. MOREHOUSE, BED-BOTTOMS.

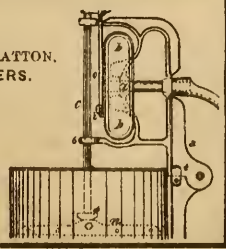


122,049 FRANCIS MOTLEY, STEAM-ENGINES.

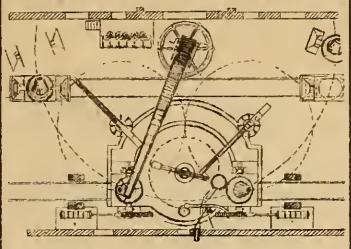


122,050 DAVID PANGLE, FIRE-PLACE GRATES.

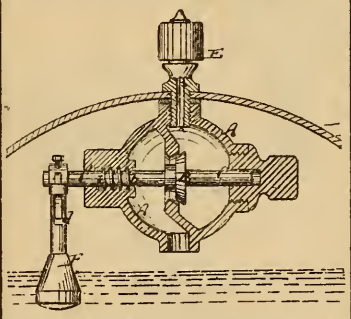
122,051 WILLIAM P. PATTON, MEAT-CHOPPERS.



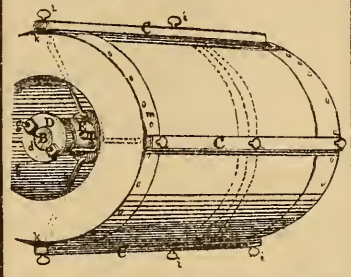
122,052 JOHN B. PEARSE, MANUFACTURE OF BESSEMER STEEL.



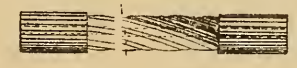
122,053 JOHN PETERS, STEAM-BOILER FLOAT-VALVES.



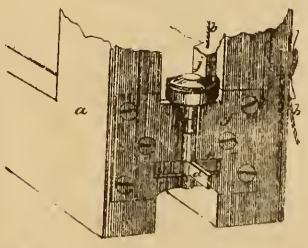
122,054 HERMAN N. PETERSEN FLOUR-BOLTS.



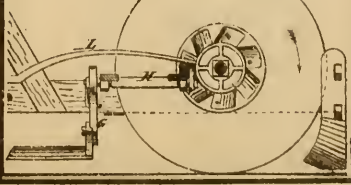
122,055 MYRON D. PHELPS, LIGHTNING-RODS.



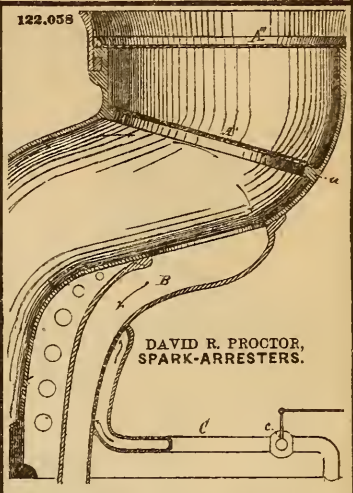
122,056 JOSEPH T. POPE, SHUTTER-WORKERS.



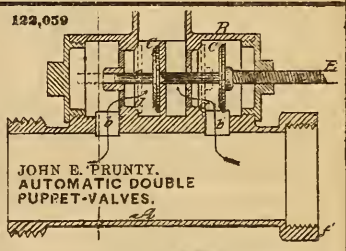
122,057 ASHLEY G. POWELL, COTTON-CHOPPERS.



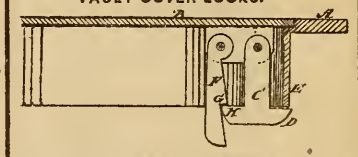
122,058 DAVID R. PROCTOR, SPARK-ARRESTERS.



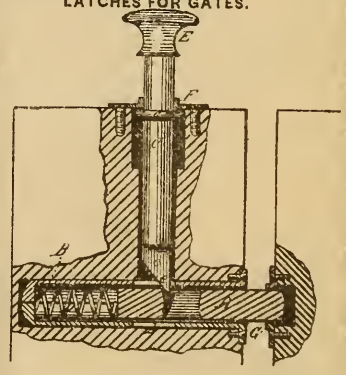
122,059 JOHN E. PRUNTY, AUTOMATIC DOUBLE PUPPET-VALVES.



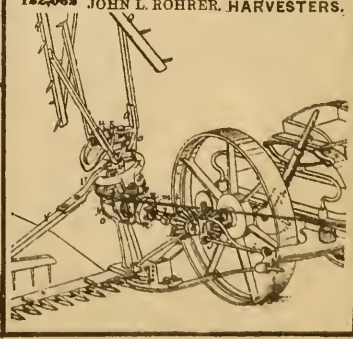
122,060 ANDREW RICHARDSON, VAULT-COVER LOCKS.



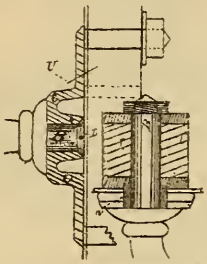
122,061 HENRY W. ROBIE, LATCHES FOR GATES.



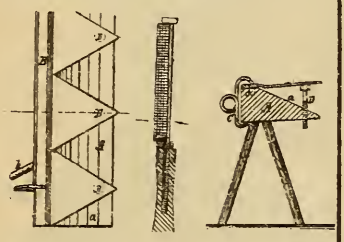
122,062 JOHN L. ROHRER, HARVESTERS.



122,063 CYRUS W. SALADEE,
TOP-JOINTS AND THEIR CONNECTIONS.

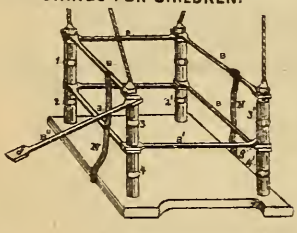


122,064 ISAAC C. SAUNDERS,
SHARPENING HARVESTER-KNIVES.

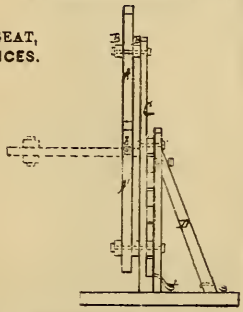


122,065 GEORGE W. SCOLLAY,
COMPOUNDS OF VEGETABLE ALKALOIDS

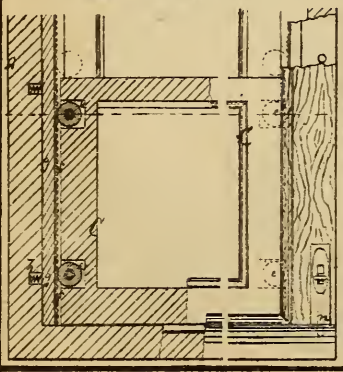
122,066 SCRIVEN AND TAYLOR,
SWINGS FOR CHILDREN.



122,067
JAMES L. SEAT,
FLOOD-FENCES.



122,068 RAPHAEL MORIS SELDIS,
SASH-HOLDERS.



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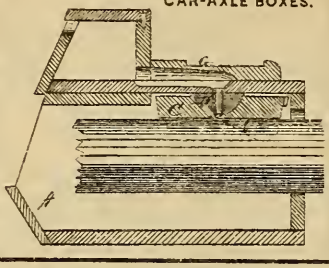
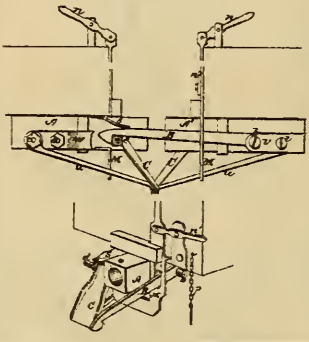
MILTON SESSIONS AND DAVID MUZZEY,
CAR-AXLE BOXES.



122,070 WILLIAM H. SKIDMORE,
CAR-COUPLINGS.



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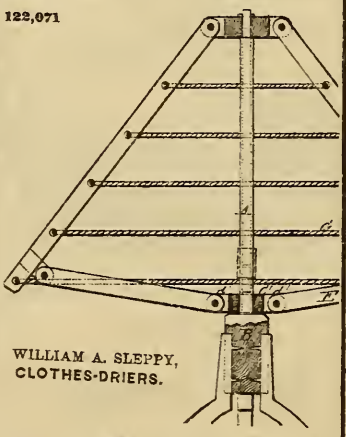
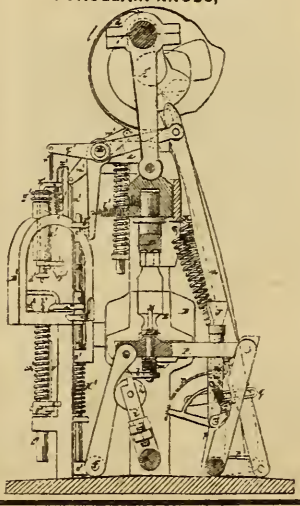


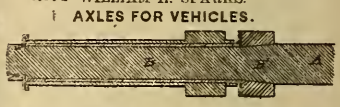
WILLIAM A. SLEPPY,
CLOTHES-DRIERS.

122,072 THOMAS J. SLOAN,
MACHINES FOR MAKING
PORCELAIN KNOBS,



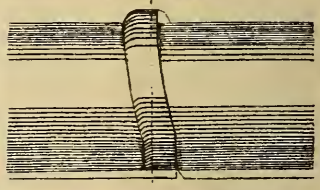
122,073 ROBERT W. SMITH,
ANTI-FRICTION JOURNAL-BOXES.

122,074 WILLIAM H. SPARKS.
AXLES FOR VEHICLES.

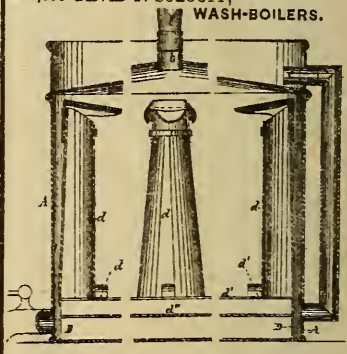


122,075 ANDREW T. STILL,
CHURN-DASHERS.

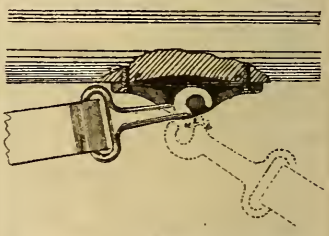
122,076 WILLIAM H. STORY,
MOLDS FOR SEWER-PIPES.



122,077 DAVID P. SULOUFF,
WASH-BOILERS.



122,078 JAMES THORNTON AND EMMIT G.
LATTA, HOLD-BACK ATTACHMENTS TO
VEHICLES



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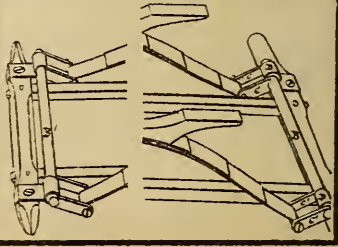
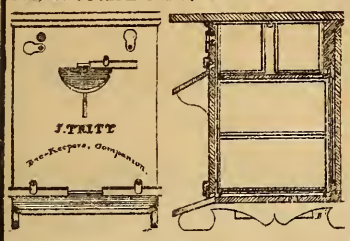
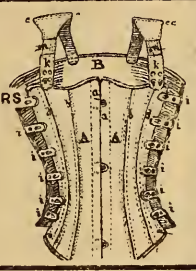
JOHN A. TOPLIFF AND GEORGE H. ELY,
CONNECTING CARRIAGE-SPRINGS.



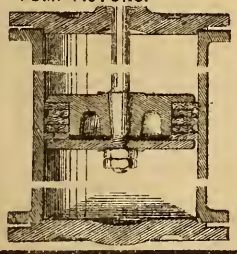
122,080 JOSEPH TRITT, BEE-HIVES.



122,081
MARY J. C. VANORSTRAND,
CORSET AND SKIRT-SUPPORTERS COMBINED.

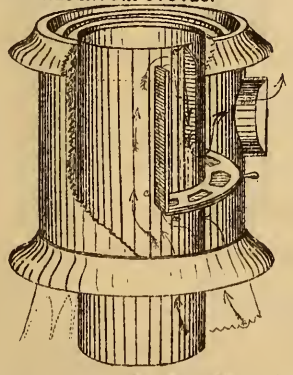


122,082 JOHN VAN TASSEL,
PUMP-PISTONS.



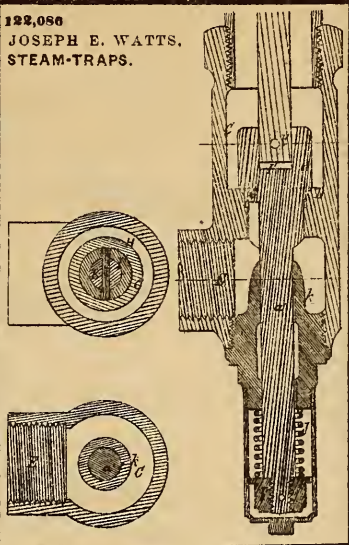
PHINEAS W. VAUGHAN,
GRINDERS FOR HARVESTER-KNIVES.

122,084 VROOMAN AND CLUTE,
RESERVOIR-STOVES.

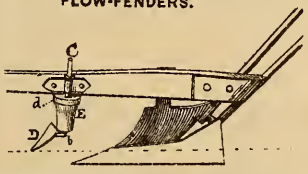


122,085 PRESTON WARE,
BOOTS AND SHOES.

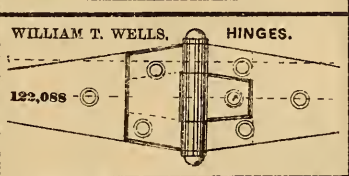
122,086
JOSEPH E. WATTS,
STEAM-TRAPS.



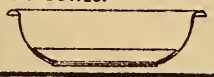
122,087 ALANSON P. WEBBER,
PLOW-FENDERS.



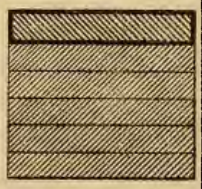
WILLIAM T. WELLS, HINGES.
122,088



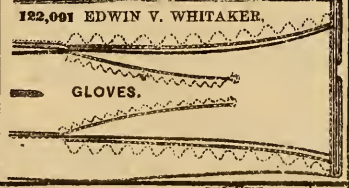
122,089 WILLIAM WESTLAKE,
WASH-BOWLS.



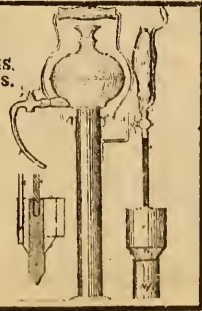
122,090
ELBRIDGE WHEELER,
FAGOTS FOR METAL BARS.



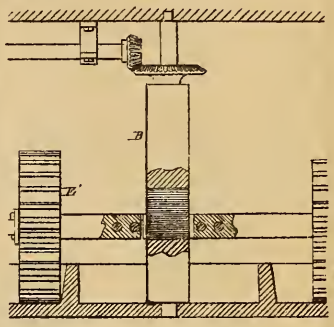
122,091 EDWIN V. WHITAKER,
GLOVES.



122,092
JOSEPH WILLIAMS,
SOLDERING IRONS.

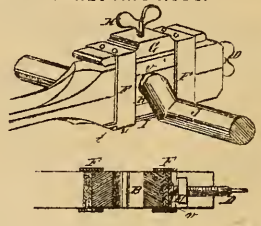


122,093
JOSEPH B. WILSON,
WASHING-MACHINES.

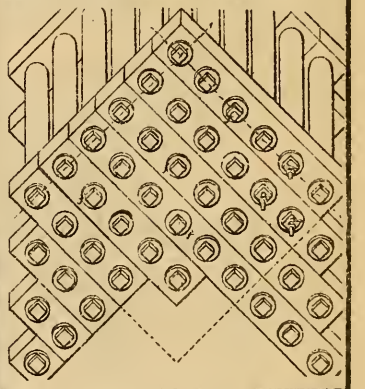


122,094
JOSEPH B. WILSON,
EXTRACTING GREASE FROM FABRICS.

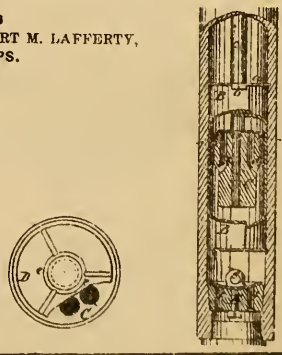
122,095 JOHN W. ZINN,
CONNECTING-RODS.



4,677 WILLIAM H. CORNELL,
SECTIONAL STEAM-BOILERS.



4,678
ROBERT M. LAFFERTY,
PUMPS.

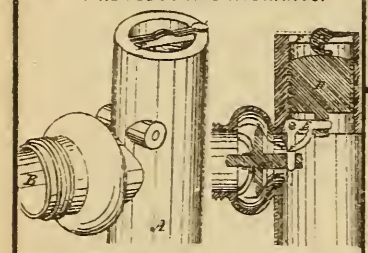


4,679 WILLIAM B. McCLURE,
BACK-CHAINS FOR CART-SADDLES.

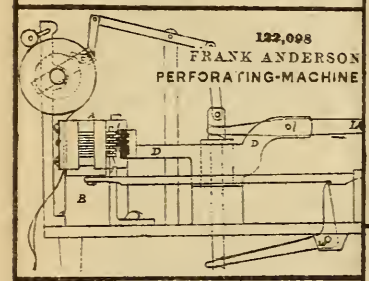
ILLUSTRATIONS OF PATENTS
ISSUED FROM
THE UNITED STATES PATENT OFFICE
DECEMBER 26, 1871.

122,096 FIELDING WALLACE ACEE
MUSICAL NOTATION.

122,097 ALBERT FRANCIS ALLEN.
FIRE-PLUGS AND HYDRANTS.

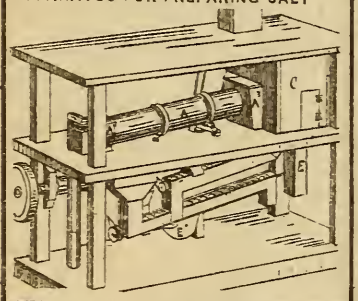


122,098
FRANK ANDERSON
PERFORATING-MACHINE

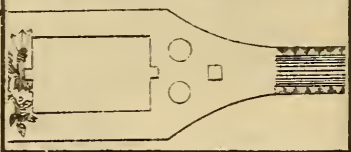


122,100 FRANCIS BAKER.
PREPARING SALT.

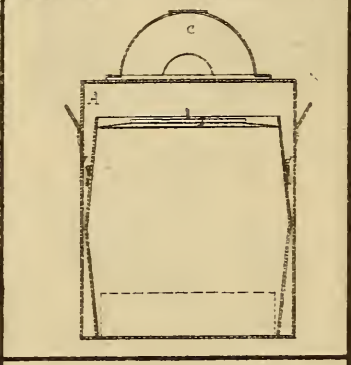
122,101 FRANCIS BAKER.
APPARATUS FOR PREPARING SALT



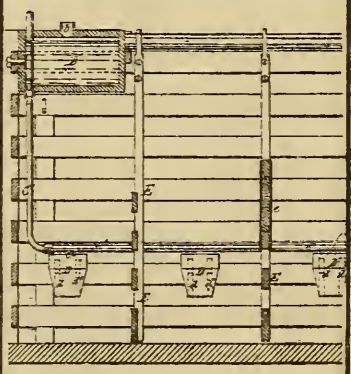
122,102 WILLIAM W. BRIGG.
MACHINES FOR MAKING SHOT.



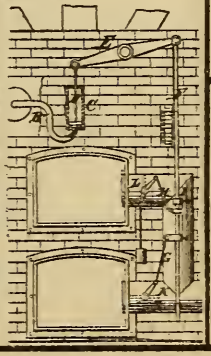
122,103 HENRY C. BULL. EARTH-CLOSETS.



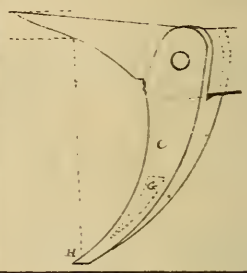
122,104 JAMES B. CALKINS.
STOCK AND FREIGHT CARS.



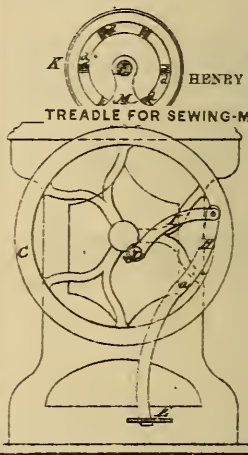
122,105
FERDINAND E. CHATARD
DRAUGHT-REGULATORS
FOR FURNACES AND
STOVES.



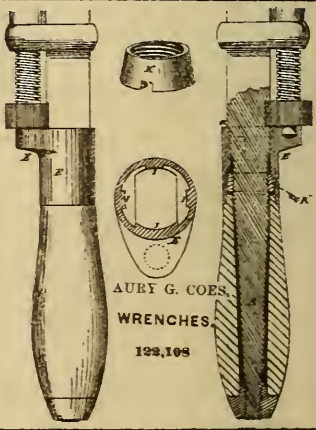
122,106 CHINN, HALL, AND FITCH,
BOX OPENERS.



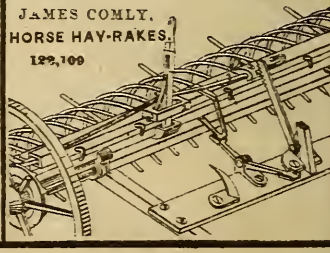
122,107
HENRY A. CLARK,
TREADLE FOR SEWING-MACHINES.



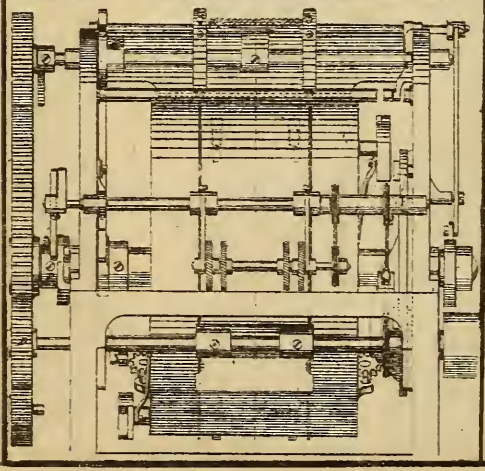
AUBY G. COES,
WRENCHES.
122,108



JAMES COMLY.
HORSE HAY-RAKES.
122,109



122,099 JAMES ARKELL. PAPER-BAG MACHINES.

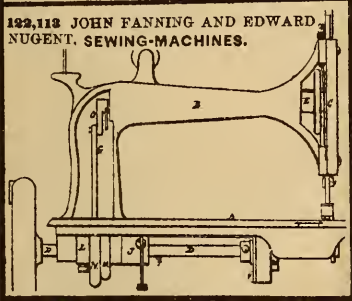


122,110 CURRIER AND LEONARD
MARINE PAINTS.

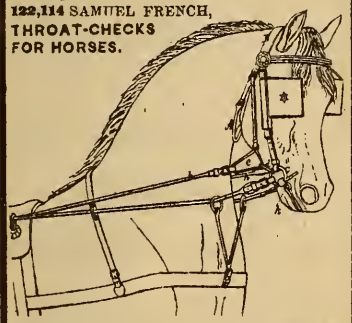
122,111 JAMES F. DUFFY.
SPRINGS FOR UPHOLSTERY PURPOSES.

122,112 CHARLES H. EGGLESTON,
HEELS FOR BOOTS AND SHOES.

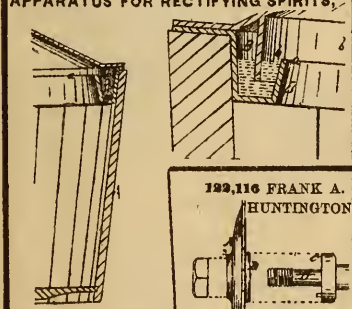
122,113 JOHN FANNING AND EDWARD NUGENT. SEWING-MACHINES.



122,114 SAMUEL FRENCH,
THROAT-CHECKS
FOR HORSES.



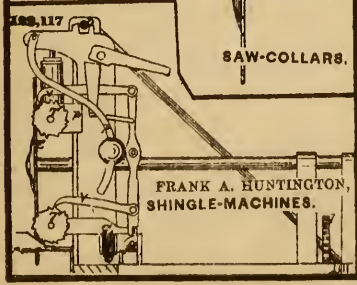
122,115 JOHN GODFREY GUENTHER,
APPARATUS FOR RECTIFYING SPIRITS.



122,116 FRANK A.
HUNTINGTON

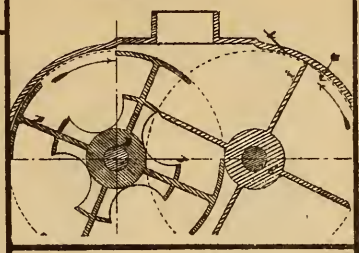
SAW-COLLARS.

122,117



FRANK A. HUNTINGTON,
SHINGLE-MACHINES.

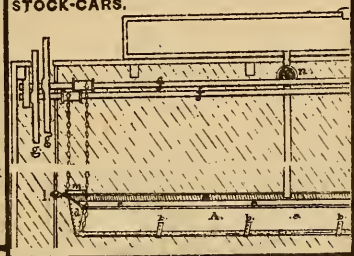
122,118 WILLIAM G. HYNDMAN,
ROTARY BLOWER



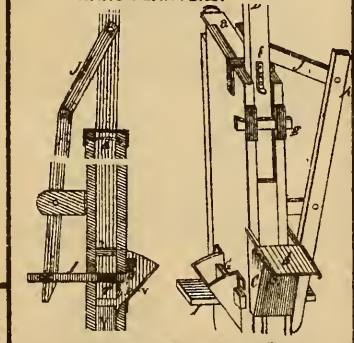
122,119 THOMAS A. R. KEECH,

CALF-WEANERS.

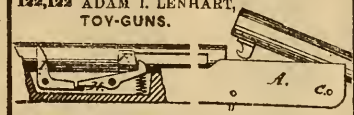
122,120 THOMAS E. KNAUSS,
STOCK-CARS.



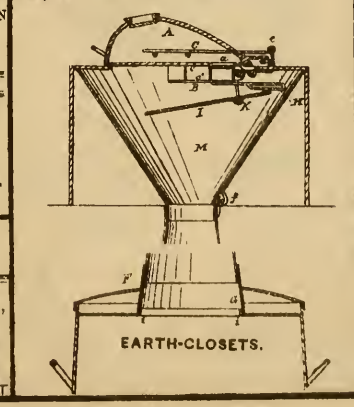
122,121 JOHN H. LATIMER,
HAND-PLANTERS.



122,122 ADAM I. LENHART,
TOY-GUNS.

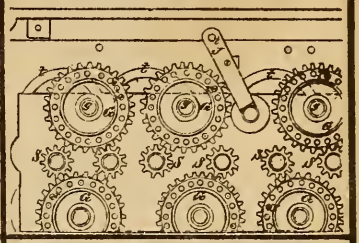


122,123 JOSEPH M. LOEWENSTEIN,

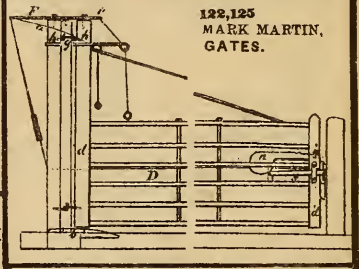


EARTH-CLOSETS.

122,124
FRANKLIN PETER MARSDEN,
COMBINATION LOCKS.

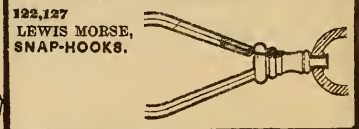


122,125
MARK MARTIN,
GATES.

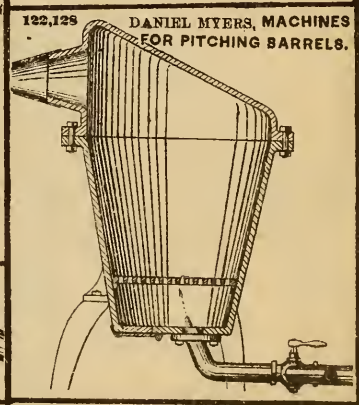


122,126
JAMES T. MILLIGAN,
STOVE-LEGS.

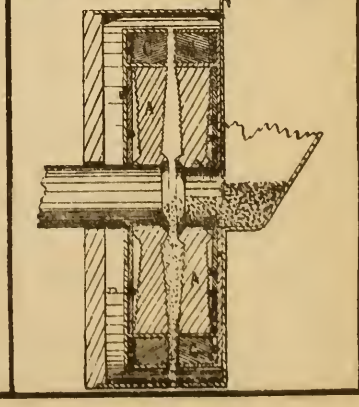
122,127
LEWIS MORSE,
SNAP-HOOKS.



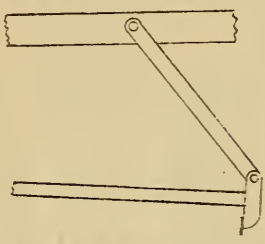
122,128 DANIEL MYERS, MACHINES
FOR PITCHING BARRELS.



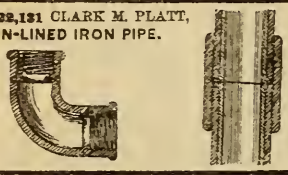
122,129 JOHN W. MYERS, FEED-MILLS.



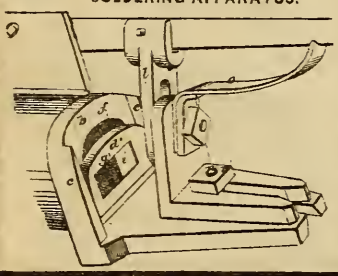
122,130 PERKINS, AND NEWCOMB.
MACHINES FOR REMOVING GREASE FROM LEATHER.

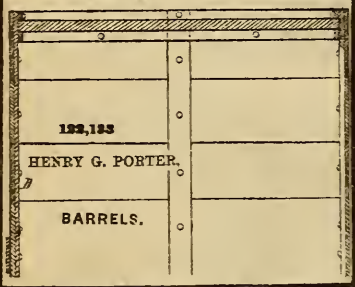


122,131 CLARK M. PLATT,
TIN-LINED IRON PIPE.

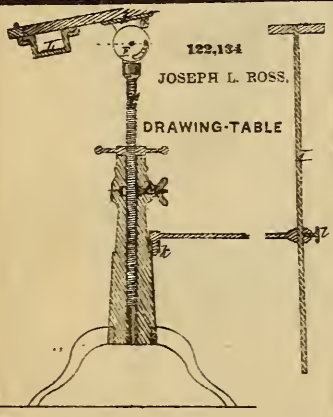


122,132 DAVID PORTEOUS.
SOLDERING APPARATUS.

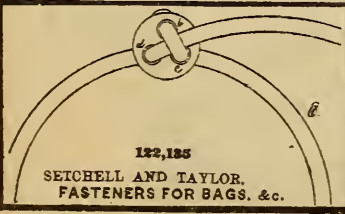




122,133
HENRY G. PORTER.
BARRELS.

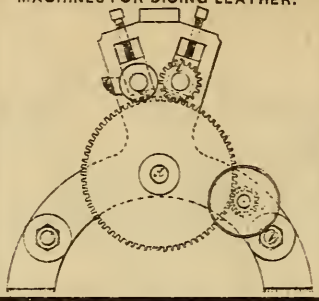


122,134
JOSEPH L. ROSS.
DRAWING-TABLE

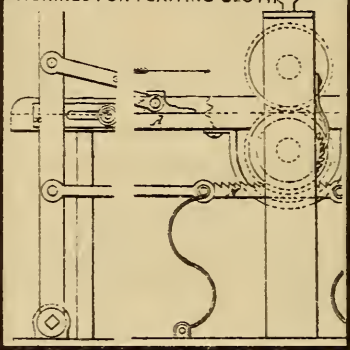


122,135
SETCHELL AND TAYLOR.
FASTENERS FOR BAGS, &c.

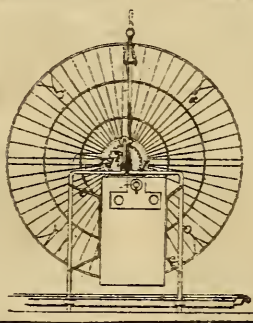
122,136 ALFRED SHEDLOCK,
MACHINES FOR DICING LEATHER.



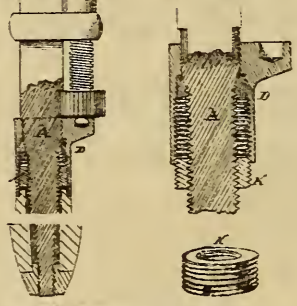
122,137 WILLIAM MONT STORM.
MACHINES FOR PLAITING CLOTH.



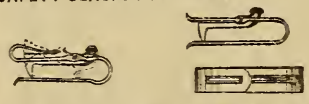
122,138 ANTONIO SUPPERNIO.
MUSICAL CAGES FOR ANIMALS.



122,139 GEORGE C. TAFT. WRENCHES.



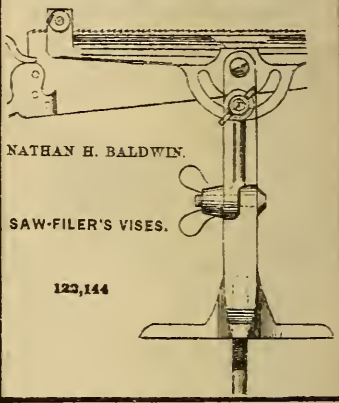
122,140 DANIEL C. TUCK,
SAFETY-CLASPS FOR POCKETS.



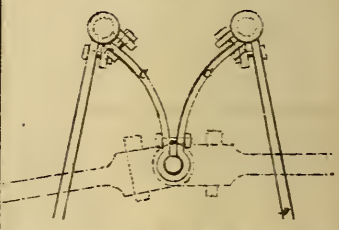
122,141
JOHN P. VEBREE.
ELASTIC WASHERS.

122,142 BENJAMIN F. WRIGHT,
PROCESSES OF TREATING RAWHIDE.

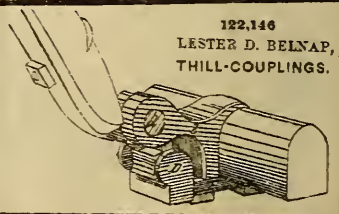
122,143 HASSAN U. ALLEN.
FRUIT-JARS.



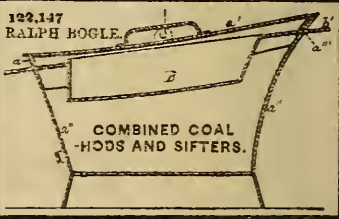
NATHAN H. BALDWIN.
SAW-FILER'S VISES.
122,144



122,145
ALBERT G. BARRETT.
APPARATUS FOR PRODUCING PLANE OR PARALLEL MOVEMENT.

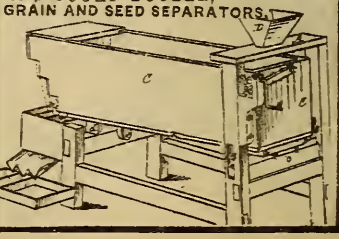


122,146
LESTER D. BELNAP,
THILL-COUPLINGS.

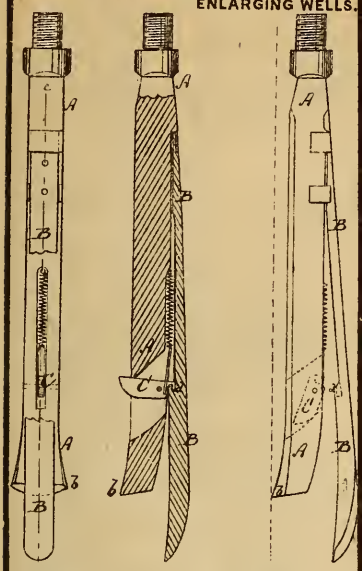


122,147
RALPH BOGLE.
COMBINED COAL -HODS AND SIFTERS.

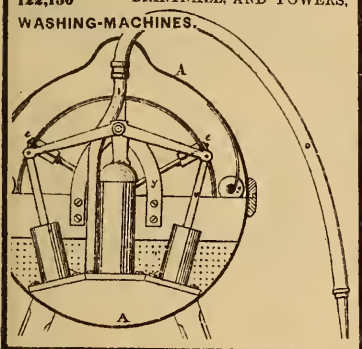
122,148 JOHN BOOZER,
GRAIN AND SEED SEPARATORS.



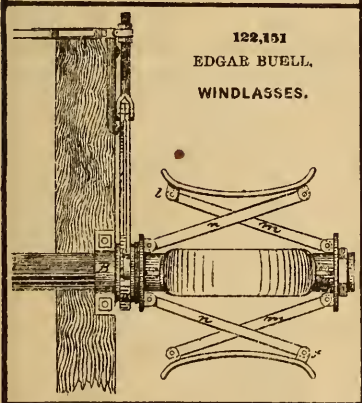
122,149 JAMES H. BOYD,
SPRING-BITS FOR CLEANING AND ENLARGING WELLS.



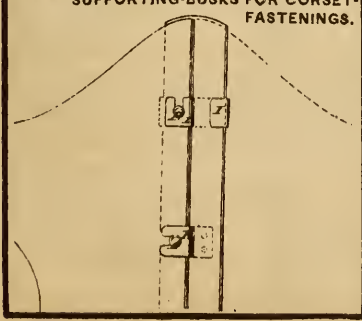
122,150 BRINTNALL, AND POWERS,
WASHING-MACHINES.



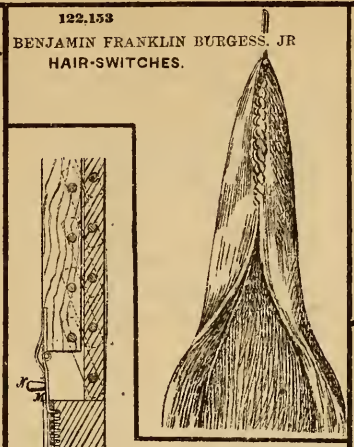
122,151 EDGAR BUELL,
WINDLASSES.



122,152 MELLISSA E. BULKLEY,
SUPPORTING-BUSKS FOR CORSET-FASTENINGS.

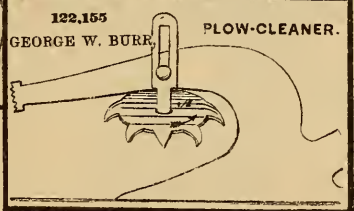


122,153 BENJAMIN FRANKLIN BURGESS, JR
HAIR-SWITCHES.

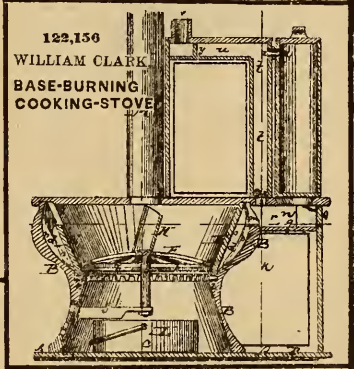


122,154 PERRY A. BURGESS.
BLIND-STOPS.

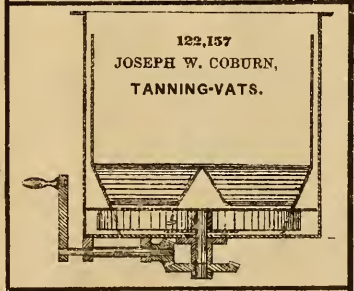
122,155 GEORGE W. BURR,
PLOW-CLEANER.



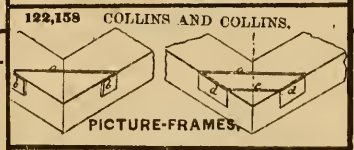
122,156 WILLIAM CLARK,
BASE-BURNING COOKING-STOVE.



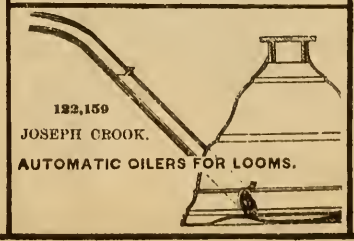
122,157 JOSEPH W. COBURN,
TANNING-VATS.



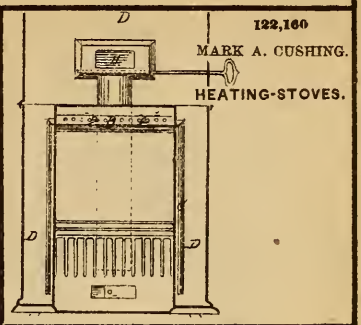
122,158 COLLINS AND COLLINS.
PICTURE-FRAMES.



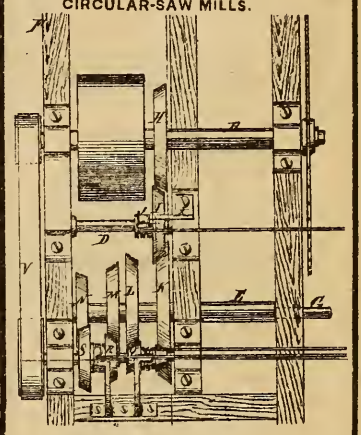
122,159 JOSEPH CROOK.
AUTOMATIC OILERS FOR LOOMS.



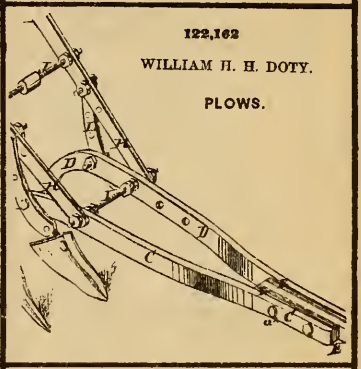
122,160 MARK A. CUSHING.
HEATING-STOVES.



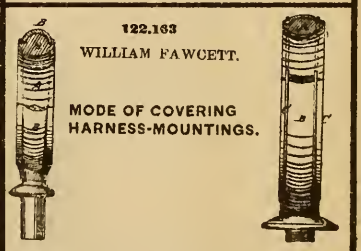
122,161 MALANCTON W. DANKS,
CIRCULAR-SAW MILLS.



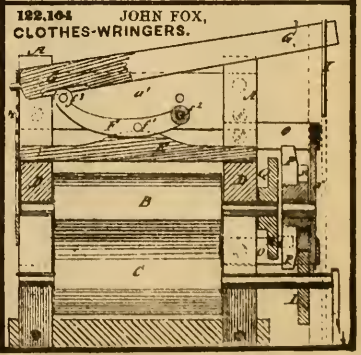
122,162 WILLIAM H. H. DOTY.
PLOWS.



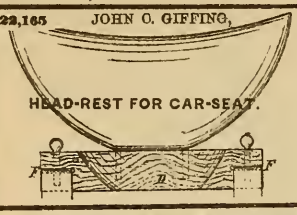
122,163 WILLIAM FAWCETT.
MODE OF COVERING HARNESS-MOUNTINGS.



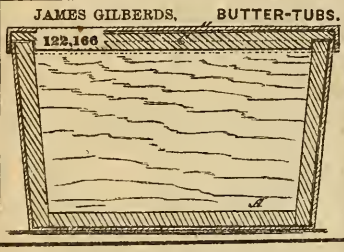
122,164 JOHN FOX,
CLOTHES-WRINGERS.



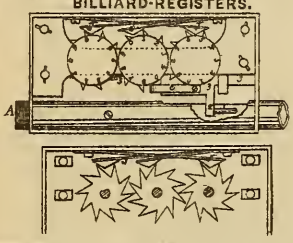
122,165 JOHN O. GIFFING,
HEAD-REST FOR CAR-SEAT.



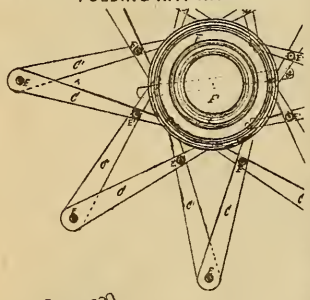
JAMES GILBERDS, BUTTER-TUBS.
122,166



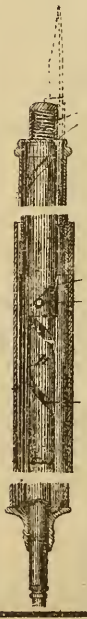
122,167 LEON GODEFROY,
BILLIARD-REGISTERS.



122,168 NATHAN HAYDEN,
FOLDING HAT-RACKS.

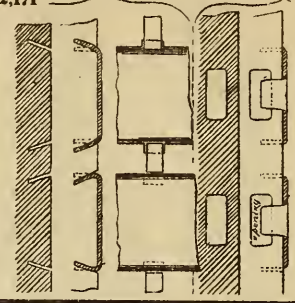


122,169
WILLIAM S. HICKS,
PEN-AND-PENCIL CASES.

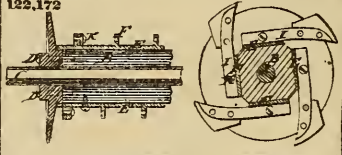


122,170 SAMUEL J. HOGGSON,
PROCESS OF PRINTING ON ENAMELED OR VITREOUS SURFACES.

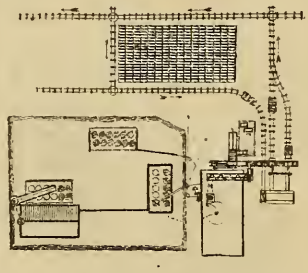
ISAAC V. HOLMES, METALLIC LATHING
122,171



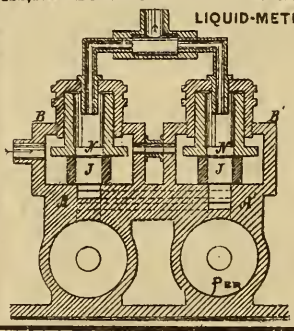
THEODORE HUDNUT. HOMINY-MILLS.
122,172



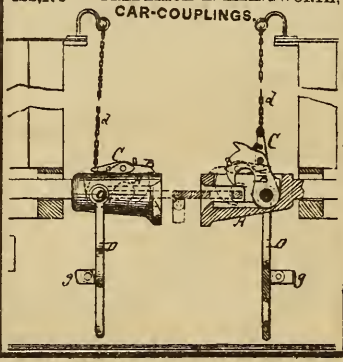
122,173 HULBERT AND AUBIN.
TREATMENT OF PEAT FOR FUEL.



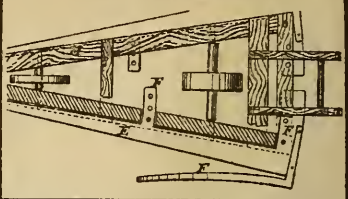
122,174 HUNTINGTON AND HEMPSTEAD,
LIQUID-METERS.



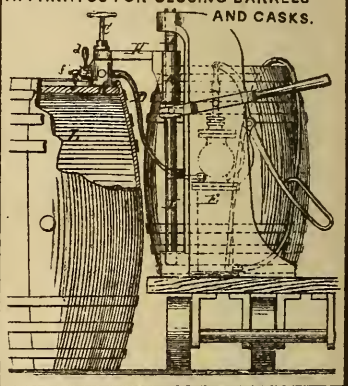
122,175 FREDERICK A. ILLINGWORTH,
CAR-COUPLINGS.



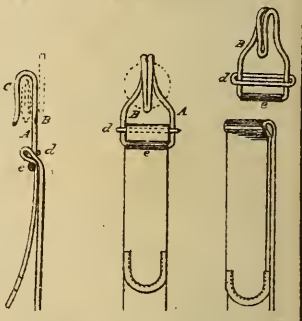
122,176 JOHN JOHNSON.
CORN-HARVESTERS.



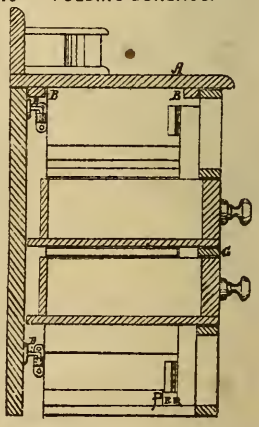
122,177 ADOLPH KOEGLER,
APPARATUS FOR CLOSING BARRELS AND CASKS.



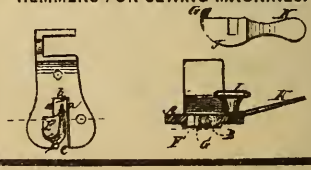
122,178 CHARLES F. LANGFORD,
DEVICES FOR SUPPORTING DRAWERS.



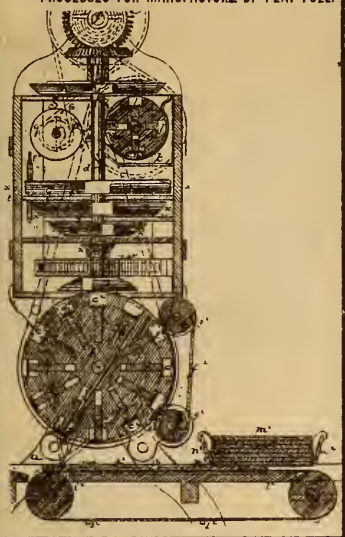
JOHN E. LAWRENCE AND JOHN S. YOUNG,
122,179 FOLDING-BUREAUS.



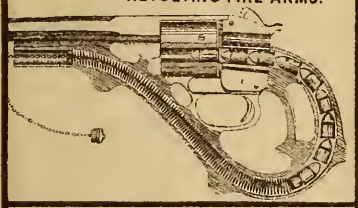
122,180 STEPHEN B. LAWRENCE,
HEMMERS FOR SEWING-MACHINES.



122,181 THOMAS H. LEAVITT, MACHINES AND PROCESSES FOR MANUFACTURE OF PEAT FUEL.

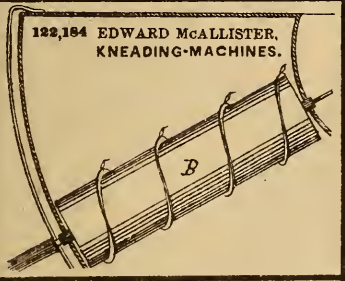


122,182 THOMAS LEE, RETRACTORS FOR REVOLVING FIRE-ARMS.

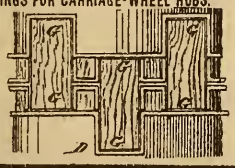


122,183 JOHN MAYER, DETACHABLE HAIR CURL

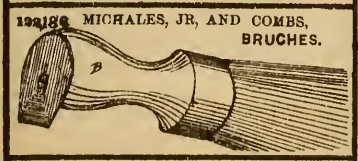
122,184 EDWARD McALLISTER, KNEADING-MACHINES.



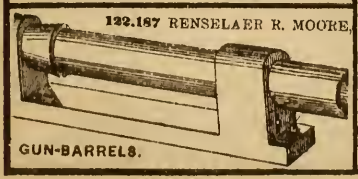
122,185 MICHEAL McNALLEY, COMBINED AXLE-BOXES, SAND-BANDS, AND CASINGS FOR CARRIAGE-WHEEL HUBS.



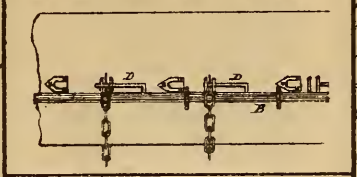
122,186 MICHALES, JR, AND COMBS, BRUCHES.

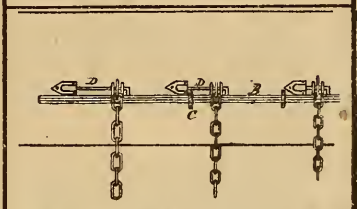


122,187 RENSELAER R. MOORE, GUN-BARRELS.

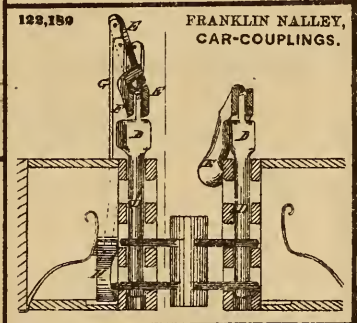


122,188 EDMUND B. MYERS, RELEASING DEVICES FOR STABLES.

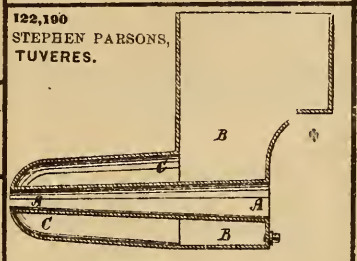




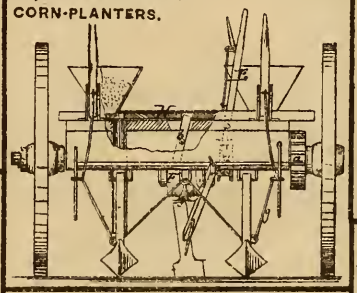
122,189 FRANKLIN NALLEY, CAR-COUPLINGS.



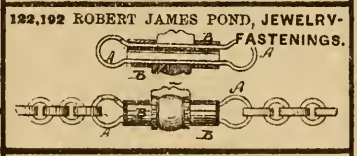
122,190 STEPHEN PARSONS, TUYERES.



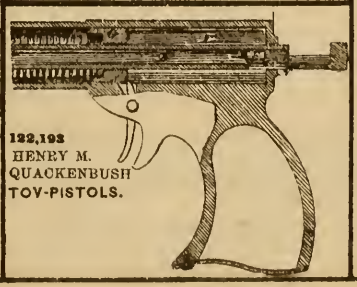
122,191 JOSEPH PIES, CORN-PLANTERS.



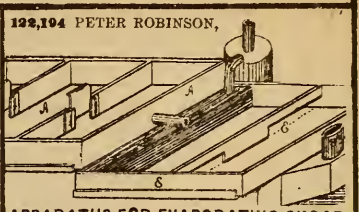
122,192 ROBERT JAMES POND, JEWELRY-FASTENINGS.



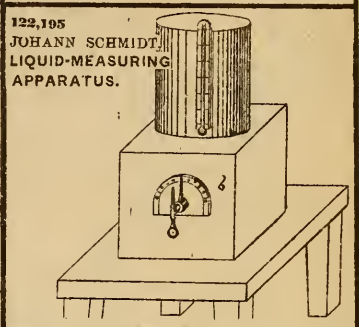
122,193 HENRY M. QUACKENBUSH TOY-PISTOLS.



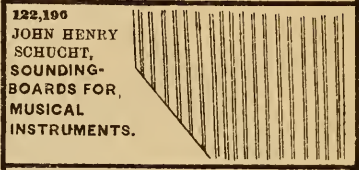
122,194 PETER ROBINSON, APPARATUS FOR EVAPORATING SUGAR.



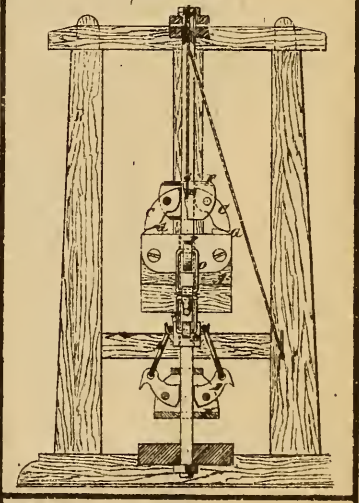
122,195 JOHANN SCHMIDT, LIQUID-MEASURING APPARATUS.



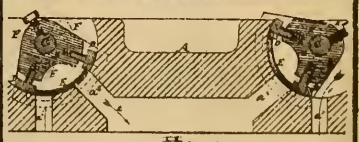
122,196 JOHN HENRY SCHUCHT, SOUNDING-BOARDS FOR MUSICAL INSTRUMENTS.

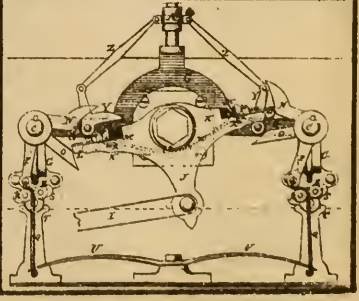


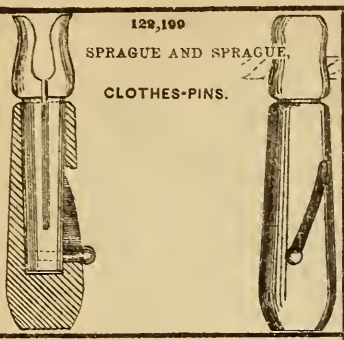
122,197 SIMPSON AND LAMKIN, COTTON-PRESSES.



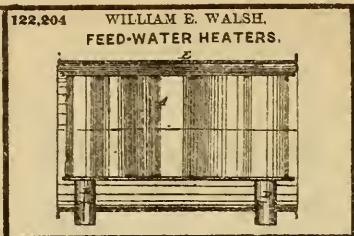
122,198 GEORGE W. SMITH, ADJUSTABLE CUT-OFF VALVES.



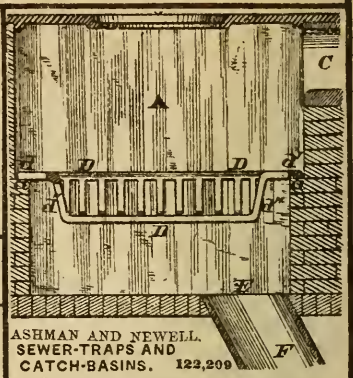




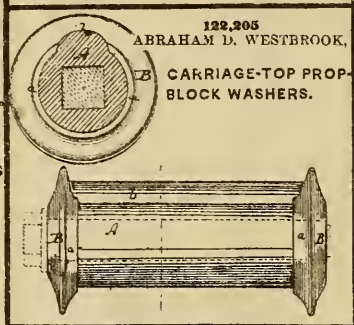
122,199 SPRAGUE AND SPRAGUE, CLOTHES-PINS.



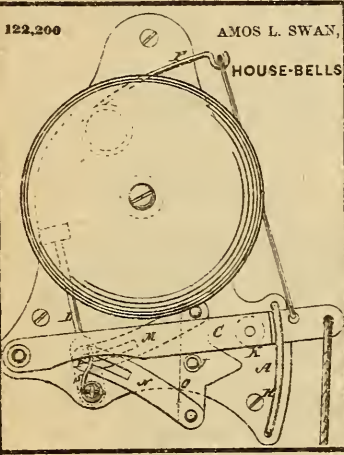
122,204 WILLIAM E. WALSH, FEED-WATER HEATERS.



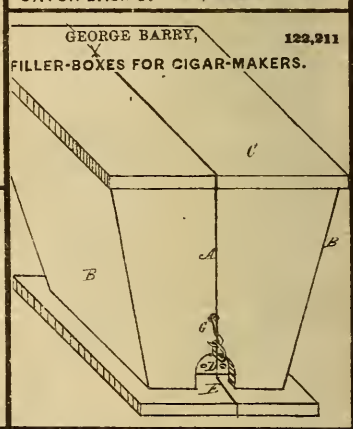
ASHMAN AND NEWELL, SEWER-TRAPS AND CATCH-BASINS. 122,209



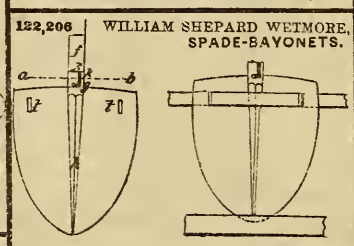
122,205 ABRAHAM D. WESTBROOK, CARRIAGE-TOP PROP-BLOCK WASHERS.



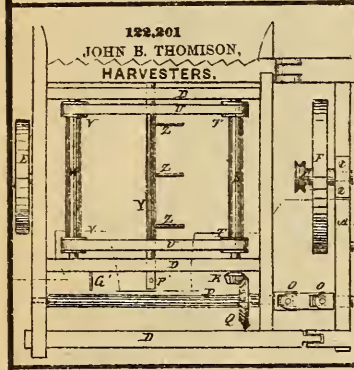
122,200 AMOS L. SWAN, HOUSE-BELLS



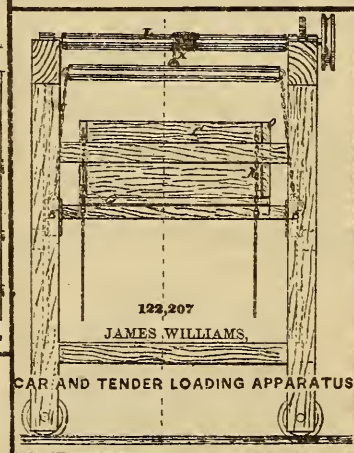
GEORGE BARRY, 122,211 FILLER-BOXES FOR CIGAR-MAKERS.



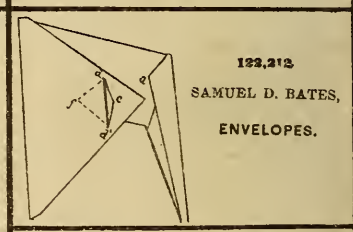
122,206 WILLIAM SHEPARD WETMORE, SPADE-BAYONETS.



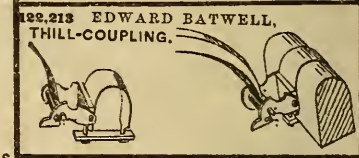
122,201 JOHN B. THOMISON, HARVESTERS.



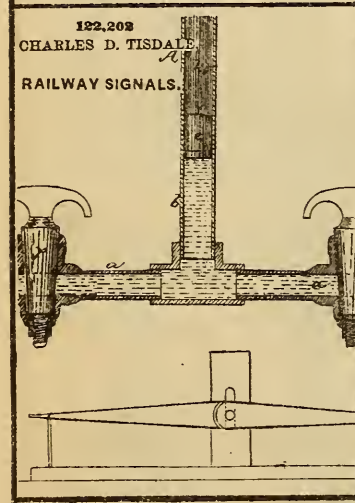
122,207 JAMES WILLIAMS, CAR AND TENDER LOADING APPARATUS



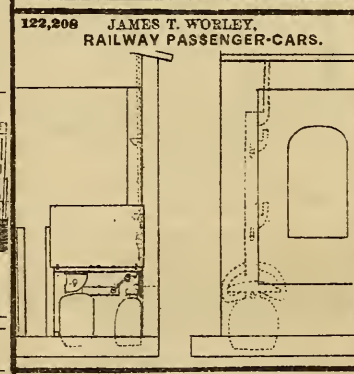
122,212 SAMUEL D. BATES, ENVELOPES.



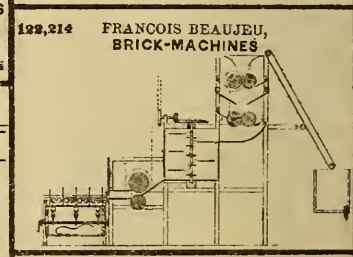
122,213 EDWARD BATWELL, THILL-COUPLING.



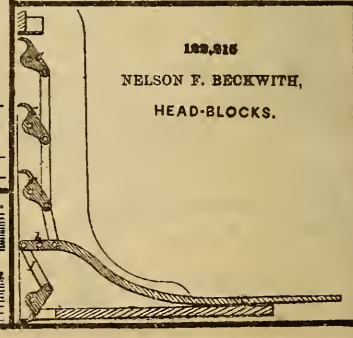
122,203 CHARLES D. TISDALE, RAILWAY SIGNALS.



122,208 JAMES T. WORLEY, RAILWAY PASSENGER-CARS.

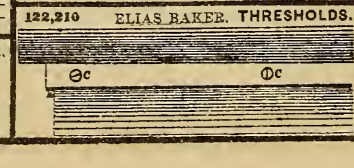


122,214 FRANÇOIS BEAUJEU, BRICK-MACHINES



122,215 NELSON F. BECKWITH, HEAD-BLOCKS.

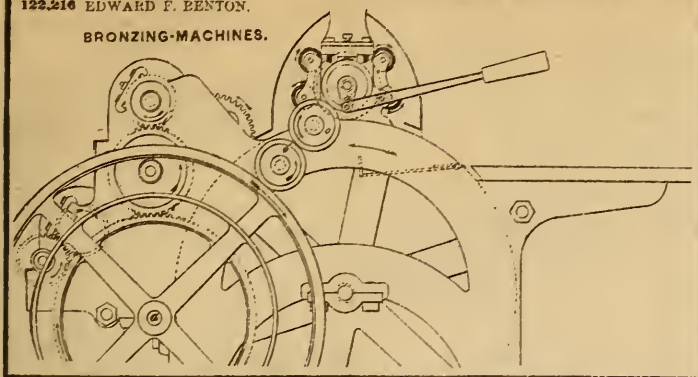
122,202 TRISCOTT AND WHEELER, SHOE-FASTENINGS.



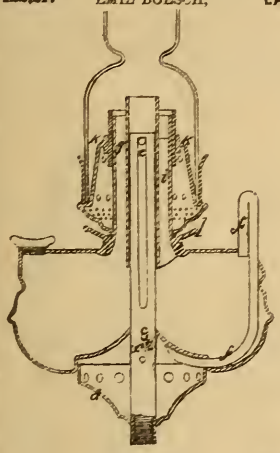
122,210 ELIAS BAKER, THRESHOLDS.

122,216 EDWARD F. BENTON.

BRONZING-MACHINES.



122,217 EMIL BOESCH, LAMPS.



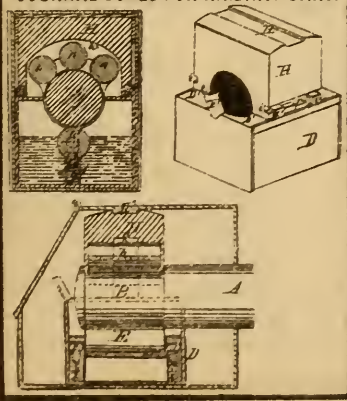
122,218

CHARLES A. BOGERT.

COMBINED WALKING-CANE AND BILLIARD-CUE.

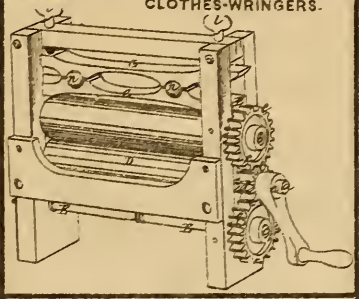
122,219 RUSSELL BREWER,

JOURNAL-BOXES FOR RAILWAY CARS.



122,220 JACOB BRINKERHOFF.

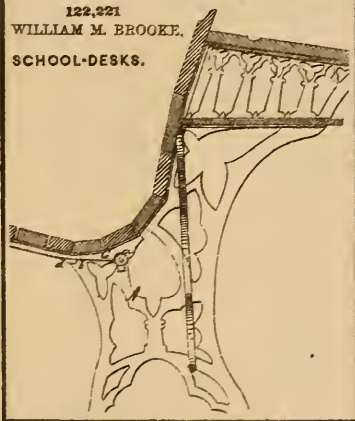
CLOTHES-WRINGERS.



122,221

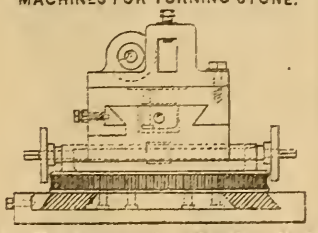
WILLIAM M. BROOKE.

SCHOOL-DESKS.



122,222 JOHN DICKINSON BRUNTON,

MACHINES FOR TURNING STONE.



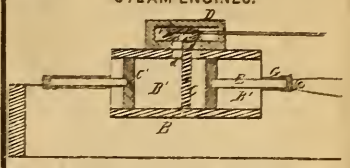
122,223

CAHOONE AND ROBINSON.

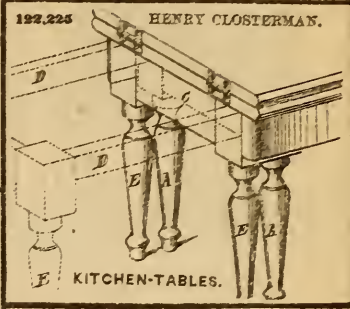
POCKET-BOOK GUARDS.

122,224 LEANDER CARMAN.

STEAM-ENGINES.



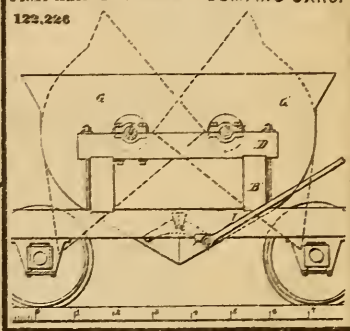
122,225 HENRY CLOSTERMAN.



KITCHEN-TABLES.

FRANKLIN B. COLTON. DUMPING-CARS.

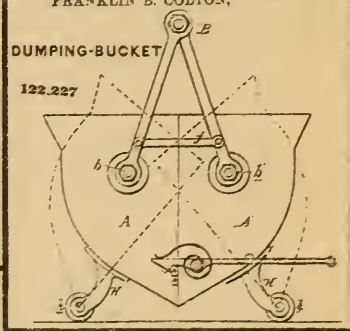
122,226



FRANKLIN B. COLTON,

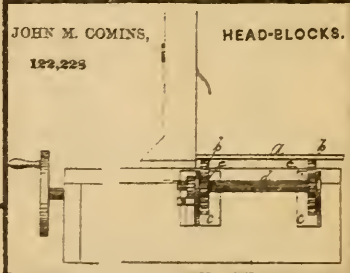
DUMPING-BUCKET

122,227



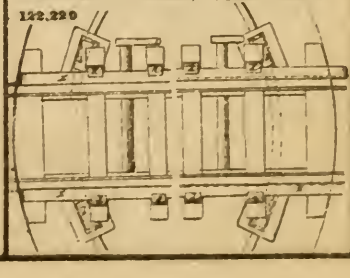
JOHN M. COMINS, HEAD-BLOCKS.

122,228



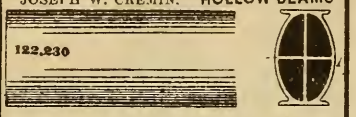
WILLIAM B. COULTER, TURN-TABLES.

122,229



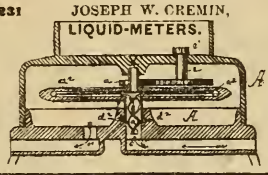
JOSEPH W. CREMIN. HOLLOW BEAMS

122,230



122,231 JOSEPH W. CREMIN,

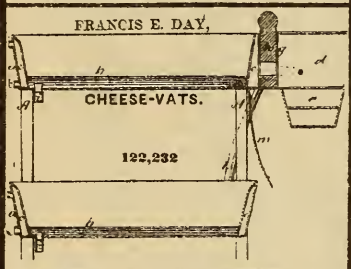
LIQUID-METERS.



FRANCIS E. DAY,

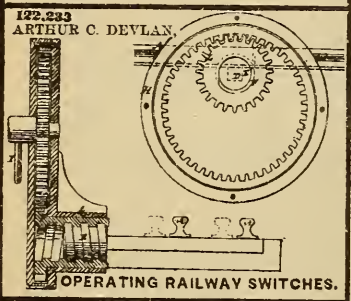
CHEESE-VATS.

122,232



122,233

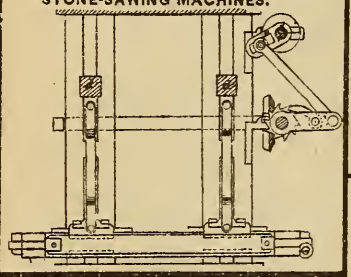
ARTHUR C. DEVLAN,



OPERATING RAILWAY SWITCHES.

122,235 DINDINGER AND HENRI,

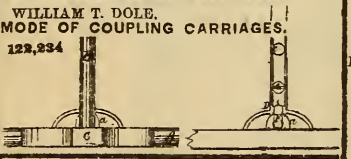
STONE-SAWING MACHINES.

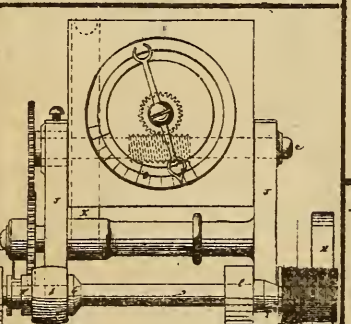


WILLIAM T. DOLE,

MODE OF COUPLING CARRIAGES.

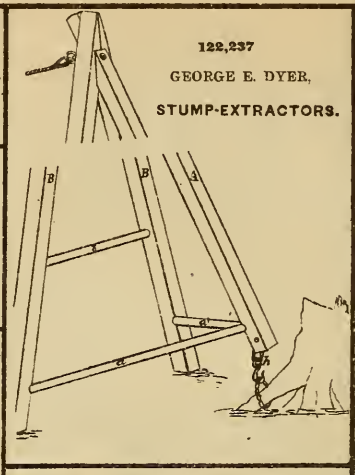
122,234





122,236 LEONARD F. DUNN

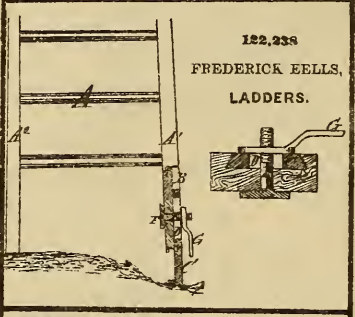
THREAD-MEASURING APPARATUS.



122,237

GEORGE E. DYER,

STUMP-EXTRACTORS.



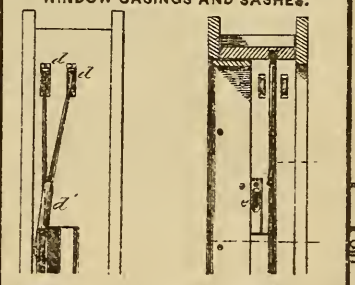
122,238

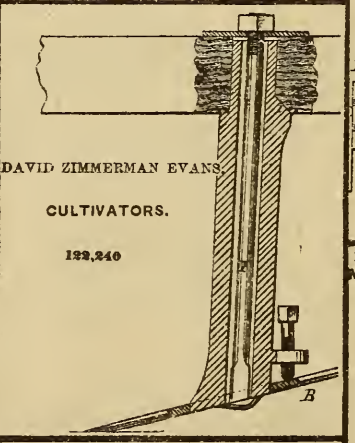
FREDERICK EELLS,

LADDERS.

122,239 MARSHALL M. ELLIS.

WINDOW CASINGS AND SASHES.



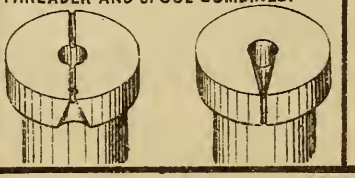


DAVID ZIMMERMAN EVANS,

CULTIVATORS.

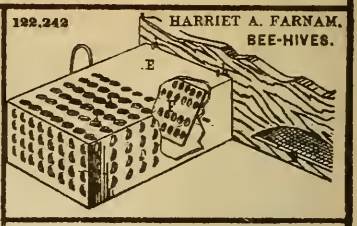
122,240

122,241 GEORGE P. FARMER, NEEDLE-THREADER AND SPOOL COMBINED.



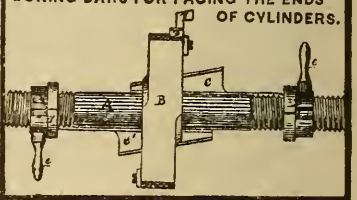
122,242 HARRIET A. FARNAM.

BEE-HIVES.



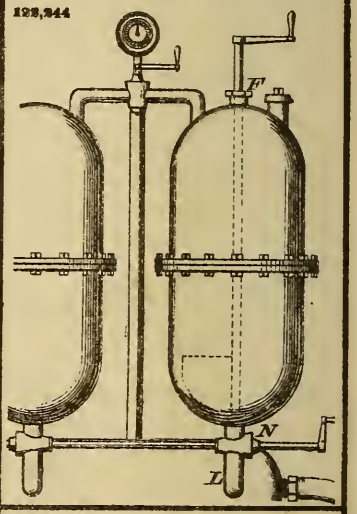
122,243 JAMES FLOWER.

BORING-BARS FOR FACING THE ENDS OF CYLINDERS.



JOSEPH GARDNER. FIRE-EXTINGUISHERS

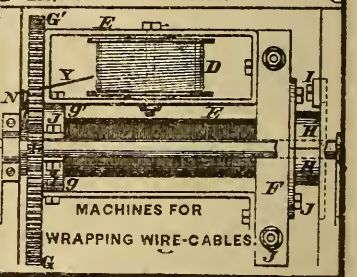
122,244



122,245 EDWIN GOMEZ

EXPLOSIVE COMPOUNDS.

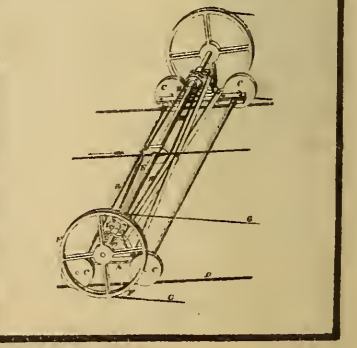
122,246 JOHN GRAY.



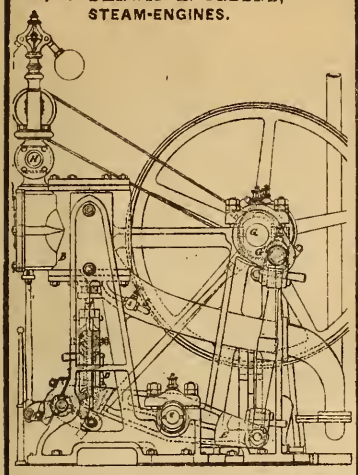
MACHINES FOR WRAPPING WIRE-CABLES.

122,247 JOHN GRAY,

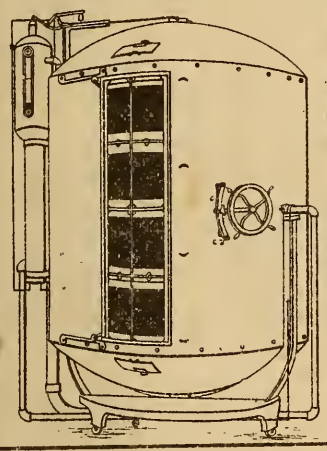
MACHINES FOR LAYING BRIDGE-CABLES



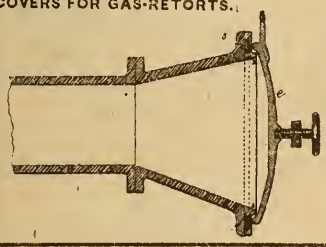
122,248 DARWIN A. GREENE, STEAM-ENGINES.



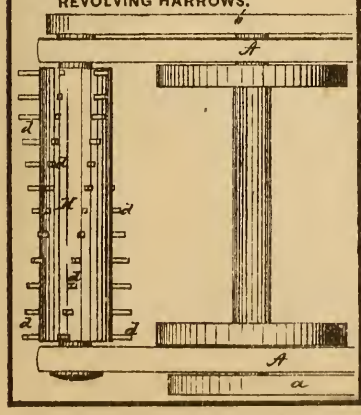
122,249 HENRY J. HAIGHT, INCUBATORS.



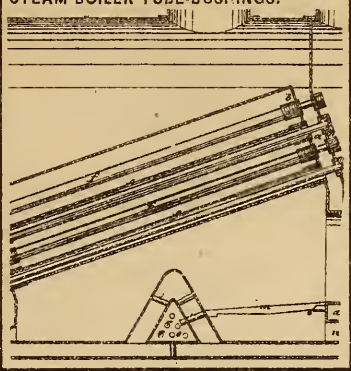
122,250 ALONZO F. HAVENS, COVERS FOR GAS-RETORTS.



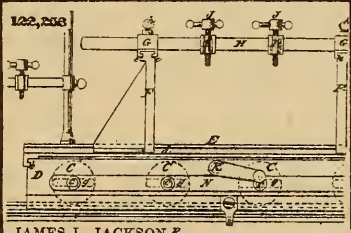
122,251 HILL AND STEWART, REVOLVING HARROWS.



122,252 FRANCIS R. HULBERT, STEAM-BOILER TUBE-BUSHINGS.

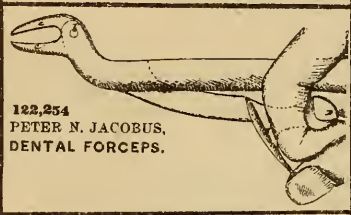


122,253

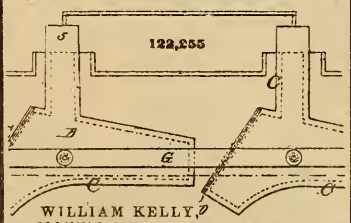


JAMES L. JACKSON, TABLES FOR EMERY-GRINDERS.

122,254 PETER N. JACOBUS, DENTAL FORCEPS.

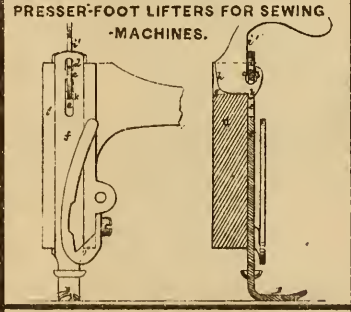


122,255

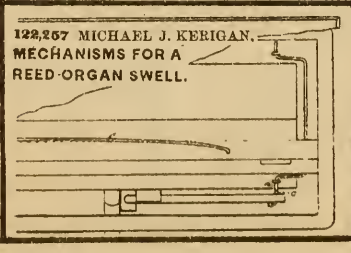


WILLIAM KELLY, MAKING STEEL CASTINGS.

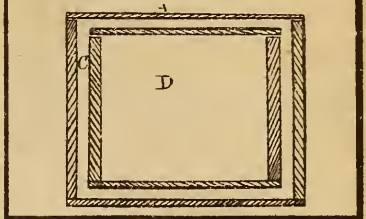
122,256 THEODORE W. KENNEDY, PRESSER-FOOT LIFTERS FOR SEWING-MACHINES.



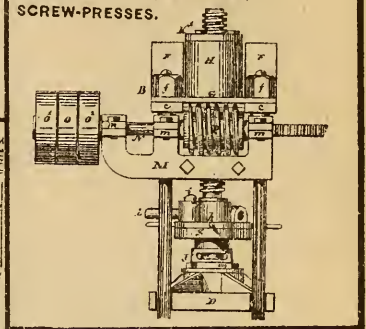
122,257 MICHAEL J. KERIGAN, MECHANISMS FOR A REED-ORGAN SWELL.

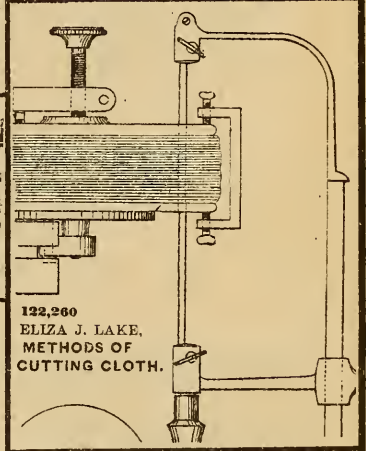


122,258 JOHN KNAPP, PRESERVING EGGS.



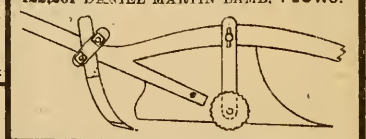
122,259 LUCIUS J. KNOWLES, SCREW-PRESSES.



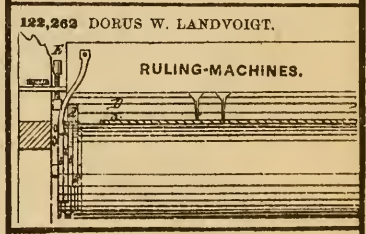


122,260 ELIZA J. LAKE, METHODS OF CUTTING CLOTH.

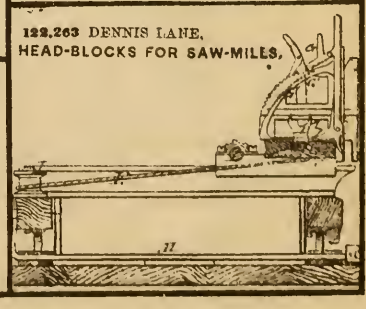
122,261 DANIEL MARTIN LAMB, PLOWS.



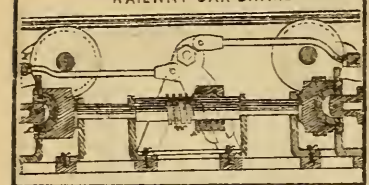
122,262 DORUS W. LANDVOIGT, RULING-MACHINES.



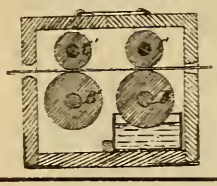
122,263 DENNIS LANE, HEAD-BLOCKS FOR SAW-MILLS.



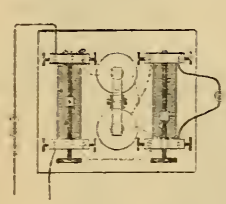
122,264 CHANCY H. LATHROP.
RAILWAY CAR-BRAKES.



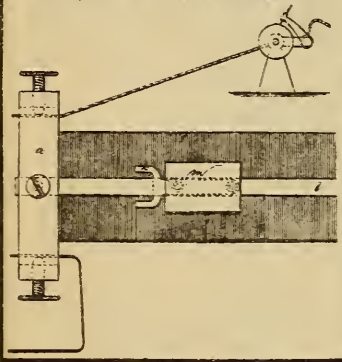
122,265 ARTHUR LE CLERCQ,
COPYING-PRESSES.



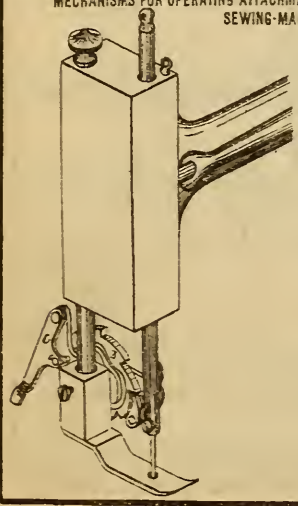
122,266 GEORGE LITTLE.
ELECTRO-MAGNETIC APPARATUS.



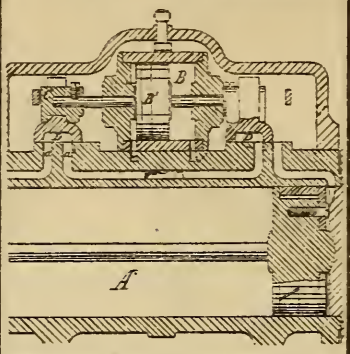
122,267 GEORGE LITTLE,
RHEOSTATS OR RESISTANCE-COILS.



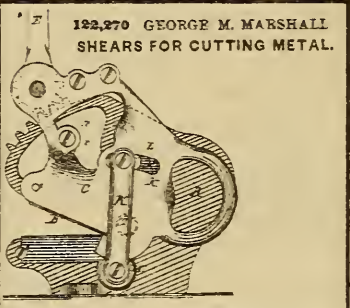
122,268 JOSEPH W. LYON,
MECHANISMS FOR OPERATING ATTACHMENTS IN SEWING-MACHINES.

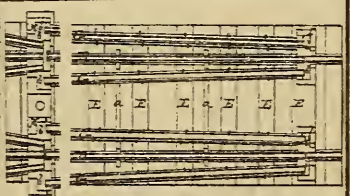


122,269 JOHN C. MACDONALD,
VALVE-GEARS FOR STEAM-ENGINES.



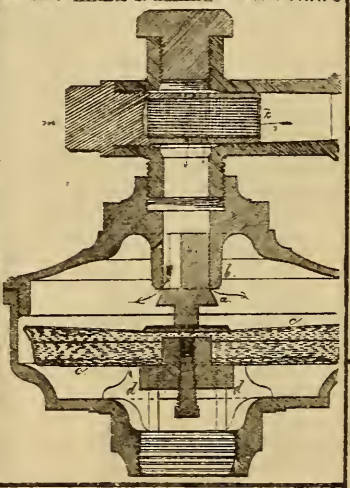
122,270 GEORGE M. MARSHALL
SHEARS FOR CUTTING METAL.



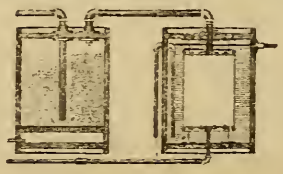


122,271 WILLIAM L. MARTIN.
RAILWAY SWITCHES.

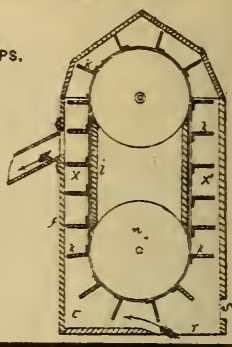
122,272 HIRAM S. MAXIM. STEAM-TRAPS



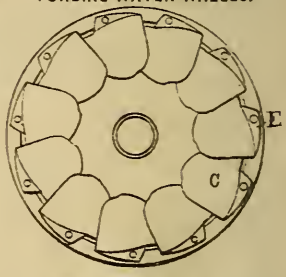
122,273 WILLIAM H. McNEILL DEODORIZING
THE GASES FROM LARD-BOILING,



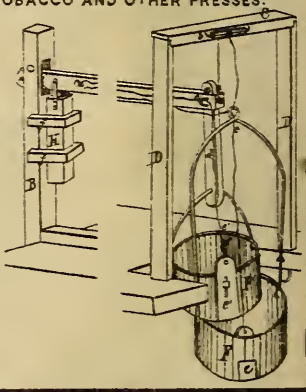
122,274 MURDOCH AND BORLAND.
BELT-PUMPS.



122,275 OBENCHAIN AND OBENCHAIN.
TURBINE WATER-WHEELS.

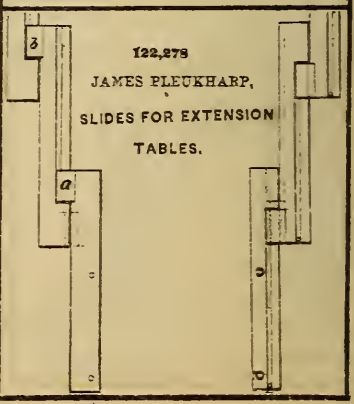


122,276 NATHANIEL M. PEPPER,
TOBACCO AND OTHER PRESSES.

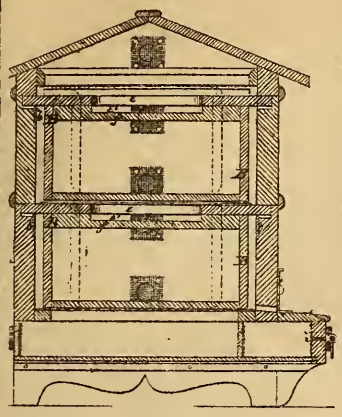


122,277 DABNEY N. M. PEREGOY,
JOURNAL-BEARINGS

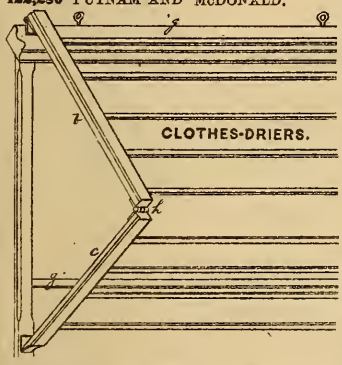
122,278
JAMES PLEUKHARP,
SLIDES FOR EXTENSION TABLES.



122,279 JAMES S. PROCTER, BEE-HIVES.



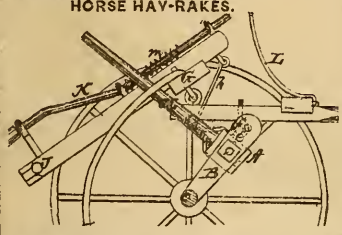
122,280 PUTNAM AND McDONALD.



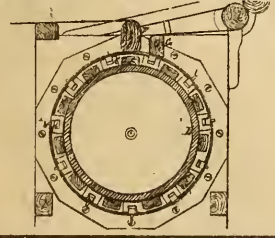
CLOTHES-DRIERS.

122,281 JAMES M. BALL, COMPOSITIONS FOR LIQUID SOAP.

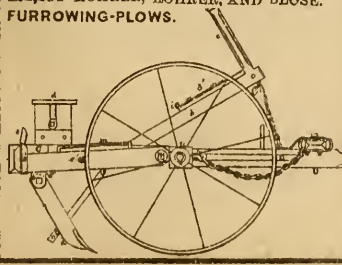
122,282 SAMUEL ROCKAFELLOW, HORSE HAY-RAKES.



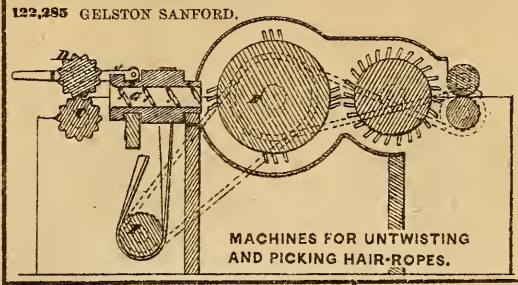
122,283 GEORGE S. ROGERS, MACHINES FOR TENTERING CLOTH.



122,284 ROHRER, ROHRER, AND BLOSE. FURROWING-PLOWS.

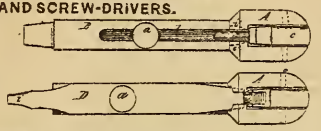


122,285 GELSTON SANFORD.

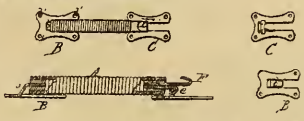


MACHINES FOR UNTWISTING AND PICKING HAIR-ROPES.

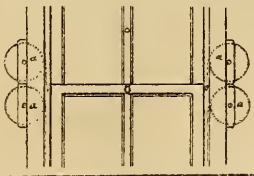
122,286 GEORGE W. SCHOFIELD, COMBINED BAND-PUNCHES AND SCREW-DRIVERS.



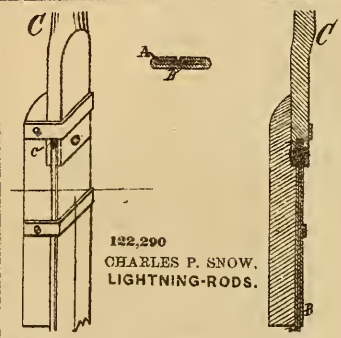
122,287 JOHN SLATCHER, SHOE-FASTENINGS.



122,288 HIRAM SMITH, SASH-BALANCES.

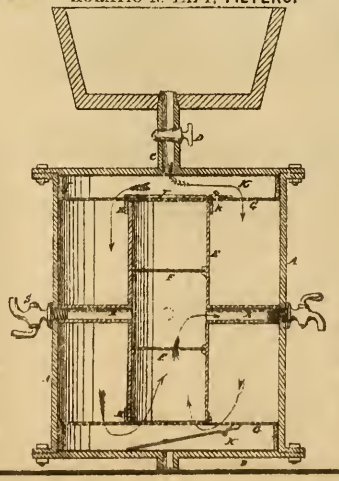


122,289 JACOB H. SMYSER. DISINTEGRATING WASTE VULCANIZED RUBBER.

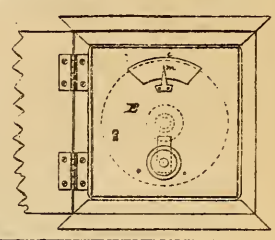


122,290 CHARLES P. SNOW, LIGHTNING-RODS.

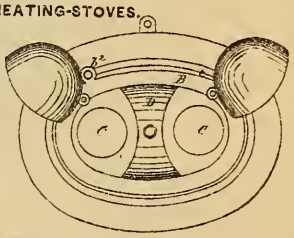
122,291 HORATIO N. TAFT, FILTERS.



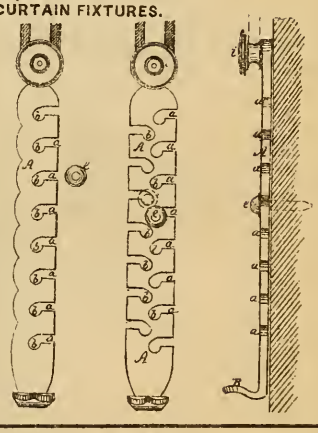
122,292 VIELLE AND ROBELLAZ WATCHMEN'S TIME-CHECKS.



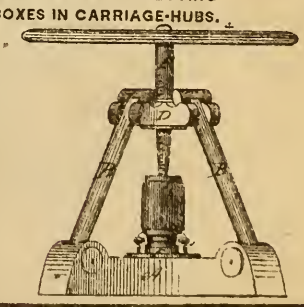
122,293 JAMES WAGER, HEATING-STOVES.



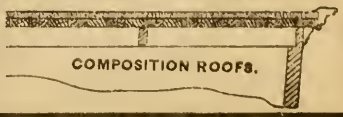
122,294 THOMAS N. WEBB. CURTAIN FIXTURES.



122,295 CHARLES WEIDIG, APPARATUS FOR SETTING BOXES IN CARRIAGE-HUBS.

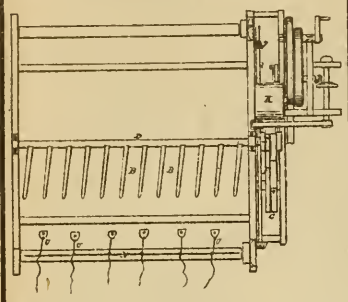


122,296 EDWARD WESTERMAYR.

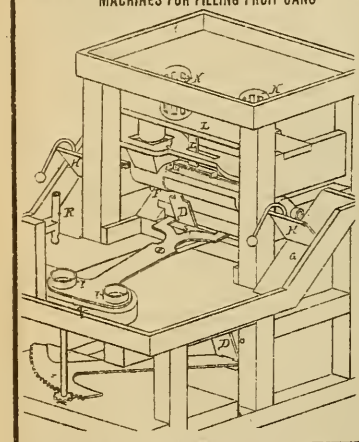


COMPOSITION ROOFS.

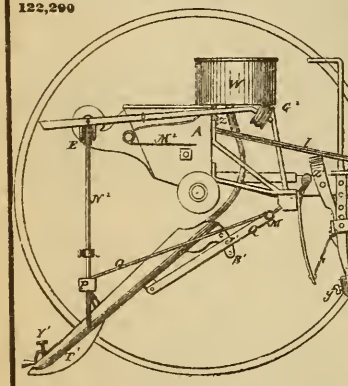
122,297 WHEELER AND WHEELER,
CARPET-BEATERS.



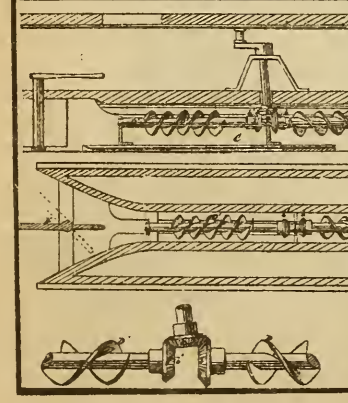
122,298 LOREN J. WICKS,
MACHINES FOR FILLING FRUIT-CANS



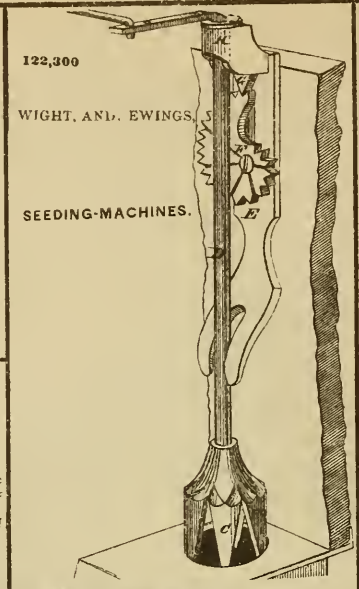
LYMAN WIGHT AND ORISON G. EWINGS.
GRAIN-DRILLS.
122,299



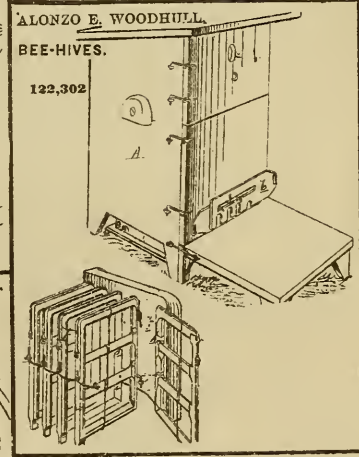
122,301 MATTHEW K. WILDMAN.
PROPELLING VESSELS.



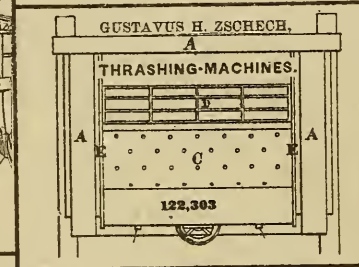
122,300
WIGHT, AND EWINGS,
SEEDING-MACHINES.



ALONZO E. WOODHULL.
BEE-HIVES.
122,302

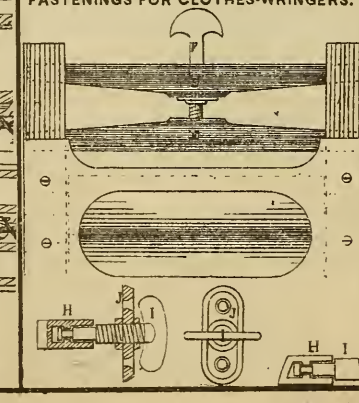


GUSTAVUS H. ZSCHECH,
THRASHING-MACHINES.



122,303

4,680 ROBERT B. HUGUNIN. ROLLERS AND
FASTENINGS FOR CLOTHES-WRINGERS.



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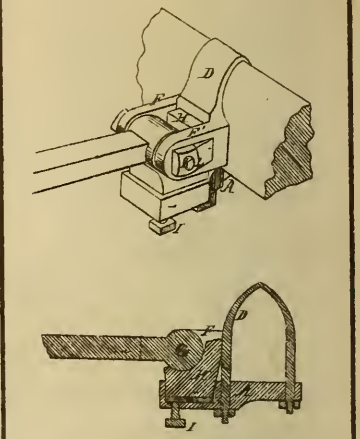
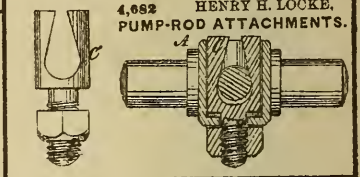
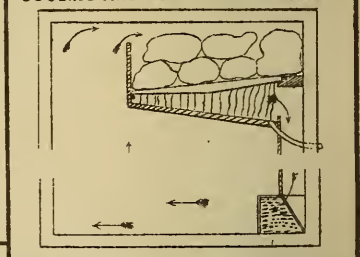
DANIEL A. JOHNSON.
THILL-COUPLINGS.



4,682 HENRY H. LOCKE.
PUMP-ROD ATTACHMENTS.

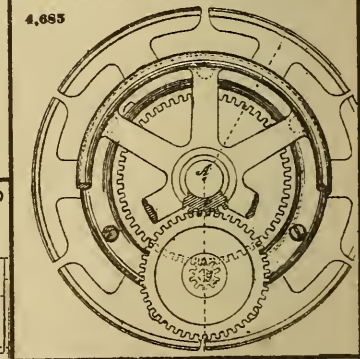


4,683 AZEL S. LYMAN.
COOLING AND VENTILATING ROOMS.

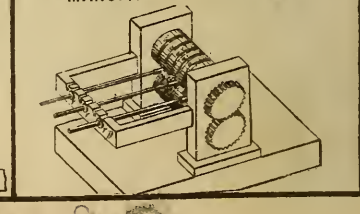


4,684 WILLIAM MAGEE. COPPER ALLOYS

THOMAS H. SAVERY EXPANDING PULLEY
4,685



4,686 JAMES HENRY BURTON,
MANUFACTURE OF GUN-BARRELS.



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